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ABSTRACT

This report of the proceedings of a conference concerned with the quality of graduate education in the United States contains papers from plenary and concurrent sessions, information on the Council of Graduate Schools' (CGS) business meeting, notices of awareness presentations, a copy of the CGS constitution and bylaws, CGS membership list, and a copy of "Report of CGS/GREB 1984-85 Survey of Graduate Enrollment, Part I" by Charles W. Daves. Titles and authors of papers are as follows: "Achieving Educational Success in the Land of Oz" (John V. Byrne); "Graduate Record Examinations System Redesign-Planning for the Future" (Norbert Kubilus); "The Status of Higher Education Legislation" (John Dean); "Fraud in Academe: Protecting the Integrity of the Institution against Academic Dishonesty" (Gary Pavela); "Enhancing the Role of the Graduate Dean in the Planning Process on Campus" (Richard B. Schwartz); "Practices and Programs to Improve Performance of Graduate Assistants" (Marilyn Baker and others); "Graduate Education's Participation in Teacher Preparation" (Leslie M. Thompson); "Responsibliities in Science and Technology" (Eric Bloch); "Quality in International Education; The Next Stage in Language and Area Studies" (Goodwin Cooke); "Quality Characteristics of Master's Degree Programs" (Jerry King; Larry J. Williams); "Reshaping Library Services and Information Systems--The Research Agenda" (Deanna Marcum); "The Social Responsibility of Graduate Education" (Theodore M. Hesburgh); and "The Forest Not the Trees" (Steven Muller). (LPT)

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Proceedings of the Twenty-Fourth Annual Meeting

COUNCIL OF GRADUATE SCHOOLS IN THE UNITED STATES

THEME

GRADUATE EDUCATION—
A Quantity of Quality for the Needs of the Nation

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December 5–8, 1984
THE CAPITAL HILTON
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A Quantity of Quality for the Needs of the Nation

December 5–8, 1984
THE CAPITAL HILTON
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edited by Edna M. Khalil

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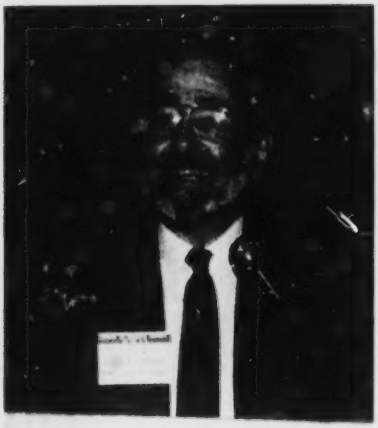

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University of Kentucky

*Effective July, 1985.

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THE COUNCIL OF GRADUATE SCHOOLS IN THE UNITED STATES

24th ANNUAL MEETING

PROGRAM

THURSDAY, DECEMBER 6, 1984

9:00 a.m.

Keynote Address: John V. Byrne, Administrator, National Ocean and Atmospheric Administration (NOAA)
President Designate, Oregon State University

Achieving Educational Success in the Land of Oz

Presiding
Robert E. Gordon, Vice President for Advanced Studies
University of Notre Dame

10:45 a.m.-12 Noon **Concurrent Sessions**

1. **Graduate Record Examinations System Redesign—Planning for the Future**

Speaker:
Norbert Kubilus, Vice President
Systems and Technology
Educational Testing Service

Respondents:
Howard B. Palmer, Acting Dean of the Graduate School
Pennsylvania State University
David Ward, Associate Dean, University of Wisconsin–Madison
Dale R. Comstock, Dean of Graduate Studies and Research
Central Washington University

Presiding
Clarence L. Ver Steeg, Dean of the Graduate School
Northwestern University

2. **Scanning and Planning for Graduate Education Needs**

Harold Hodgkinson, Senior Fellow
Institute for Educational Leadership

Presiding
Beverly B. Cassara, Dean of Graduate Studies
University of the District of Columbia

3. **The Status of Higher Education Legislation**

John E. Dean, Minority Staff
Subcommittee on Postsecondary Education,
Committee on Education and Labor
U.S. House of Representatives
Betsy Brand, Acting Staff Director
Subcommittee on Employment and Productivity
Committee on Labor and Human Resources,
U.S. Senate
Maryln McAdam, Staff Assistant to Congressman William Ford (D–Mi)

Presiding
Thomas J. Linney, Jr., CGS, Director of Government and Association Relations

4. **Fraud in Academe: Protecting the Integrity of the Institution Against Academic Dishonesty**

Phillip M. Grier, Executive Director
National Association of College and University Attorneys
Lee B. Liggett, General Counsel
University of Vermont
Gary Pavela, Director of Judicial Programs
University of Maryland College Park

Presiding
Henry Solomon, Dean of the Graduate School
George Washington University

12:00 Noon
Luncheon

Speaker
John B. Slaughter, Chancellor
University of Maryland College Park

Making the Connections: Graduate Education as a Part of the Overall Educational Process

Presiding
David S. Sparks, Vice President for Graduate Studies and Research
University of Maryland

2:00 p.m.-3:15 p.m. **Concurrent Sessions**

5. **Enhancing the Role of the Graduate Dean in the Planning Process on Campus**

Raymond M. Haas, Past President, Society for College and University Planning, and Vice President for Administration, University of Virginia
Richard B. Schwartz, Dean of Graduate School
Georgetown University

Presiding
Carole Wharton, Director of Capital Planning
University of Maryland

6. **Practices and Programs to Improve Performance of Graduate Assistants**

Marilyn Baker, Associate Dean
University of Southern California
Jacob Goldhaber, Acting Dean of Graduate Studies and Research,
University of Maryland College Park
W. Lee Humphreys, Director
Learning Research Center
University of Tennessee–Knoxville

Presiding
C. W. Minkel, Vice President and Dean of the Graduate School
University of Tennessee

7. **Graduate Education's Participation in Teacher Preparation**

Mary Ann Carroll, Dean, Graduate Studies and Director of Research
Indiana State University
David Imig, Executive Director
American Association of Colleges for Teacher Education
Leslie M. Thompson, Dean, School of Graduate Studies
Texas Woman's University
Linda H. Mantel, Assistant Provost for Research and Graduate Studies
City College of the City University of New York

Presiding
Dale R. Comstock, Dean of Graduate Studies and Research
Central Washington University

8. **Tax Issues Affecting Graduate Education**

Edwin S. Cohen
Joseph M. Hartfield Professor of Law, University of Virginia
and Partner, Covington and Burling, Washington, D.C.

Presiding
William Spitzer, Dean of Graduate Studies
University of Southern California

3:45-5:00 p.m. **Plenary Session I**

Investing in Graduate Education: The Cost of a Quantity of Quality

Alvin W. Trivelpiece, Director, Office of Energy Research
U.S. Department of Energy
Harold Hanson, Executive Director, House Committee on Science and Technology, U.S. House of Representatives

Presiding
Wimberly C. Royster, Vice Chancellor for Research and Dean of the Graduate School, University of Kentucky

9:00 p.m. **CGS in China**

H. H. Cheng, Associate Dean, Graduate School, Washington State University

FRIDAY, DECEMBER 7, 1984

9:00 a.m.
Plenary Session II

Erich Bloch, Director, National Science Foundation

Responsibilities in Science and Technology

Presiding
Alison P. Casarett, Dean of the Graduate School and Vice Provost
Cornell University

10:45-12 Noon
Business Meeting

Chairman's Report
Robert E. Gordon, Vice President for Advanced Studies
University of Notre Dame

President's Report
Jules B. LaPidus, President
Council of Graduate Schools in the U.S.

Resolutions

Presiding
Robert E. Gordon, Vice President for Advanced Studies
University of Notre Dame

12 Noon
Luncheon

Presentation of Awards

Gustave O. Arlt Award in the Humanities

Presented by
James Ballowe, Associate Provost and Dean of Graduate School
Bradley University

CGS/University Microfilms International
Distinguished Dissertation Award

Presented by
Richard B. Schwartz, Dean of Graduate School
Georgetown University

Presiding
Eugene Kennedy, Dean of the School of Arts and Sciences
The Catholic University of America

2:00-3:15 p.m.
Plenary Session III—Quality in International Education:
The Next Stage in Language and Area Studies

Speaker:
Richard D. Lambert, Director
South Asia Regional Studies
University of Pennsylvania

Commenters:
Richard Thompson, Deputy Director
Center for International Education
Department of Education
Ambassador Goodwin Cooke, Vice President International Affairs
Syracuse University
Col. William A. Scott, U.S. Army
Director, Education Directorate
Office of the Secretary of Defense

Presiding
Volker Weiss, Vice President for Research and Graduate Affairs
Syracuse University

3:45-5:00 p.m. **Concurrent Sessions**

9. **Supply/Demand Assessments of Graduate Talent**

Alan Fechter, Executive Director
Office of Scientific and Engineering Personnel
National Research Council
Beverly Porter, Manager, Manpower Statistics
American Institute of Physics
Kenneth C. Green, Senior Research Associate
Cooperative Institutional Research Program
University of California, Los Angeles

Presiding
William S. Livingston, Vice President and Dean of Graduate Studies
University of Texas at Austin

10. **Quality Characteristics of Master's Degree Programs**

Jerry King, Dean of the Graduate School
Lehigh University
Larry J. Williams, Dean of Graduate School
Eastern Illinois University

Presiding
Vivian A. Vidoli, Dean of Division of Graduate Studies and Research
California State University–Fresno

11. **Reshaping Library Services and Information Systems—the Research Agenda**

Warren J. Haas, President
Council on Library Resources, Inc.
Deanna Marcum, Vice President, Council on Library Resources, Inc.

Presiding
Reuben W. Smith, Dean of the Graduate School
University of the Pacific

12. **A Global Research Program for Minorities in Graduate Education**

Panel: Jaime Rodriguez, Dean of Graduate Studies and Research
University of California–Irvine
Elaine J. Copeland, Associate Dean
University of Illinois at Urbana–Champaign

Presiding
Luther S. Williams, President
Atlanta University

SATURDAY, DECEMBER 8, 1984

9:00 a.m.
Plenary Session IV

Theodore M. Hesburgh, President
University of Notre Dame

The Social Responsibility of Graduate Education and Research

Presiding
Arnold E. Schwartz, Vice Provost and Dean of Graduate School
Clemson University

10:45-12 Noon
Plenary Session V

Steven Muller, President
The Johns Hopkins University

The Forest Not the Trees: Graduate Study in the University

Presiding
Lee B. Jones, Vice President for Research and Dean of Graduate College
University of Arizona

12:00 Noon
Adjournment

PELCZAR NAMED PRESIDENT EMERITUS

Michael J. Pelczar, Jr., was honored at the annual meeting welcome dinner. He is seen here with **Robert E. Gordon,** CGS Board Chairman, who read the President Emeritus Award scroll which was presented to him:

> "This award is presented to Michael J. Pelczar, Jr. in recognition of his six years of distinguished presidential leadership rendered with boundless enthusiasm and courageous optimism, and in deep appreciation of his long-standing involvement in, and enduring contributions to, graduate education and the national interest. His leadership by example, his generous spirit, and his devotion to the Council and to graduate education will be long and gratefully remembered.
>
> Presented by the Board of Directors of the Council of Graduate Schools in the U.S., Robert E. Gordon, Chairman, at Washington, D.C., December 5, 1984."

In presenting to **Merna Foss Pelczar** (Mrs. Michael J., Jr.) an award designating her as Photographer Emeritus, the Council recognized Mrs. Pelczar's voluntary contributions to the Council in a "task graciously undertaken by her . . . a tribute to her selflessness and dedication." As the award states, "her warmth, charm and grace have enriched our spirits . . . our esteem for her is beyond measure."

CGS PRESENTS CERTIFICATE OF COMMENDATION TO EDUCATION SECRETARY BELL

Terrel H. Bell who had recently announced his resignation as U.S. Secretary of Education, listens as CGS President **Jules B. LaPidus** reads to him the Certificate of Commendation presented to him by the Council recognizing his "leadership, vision and service to his country . . . he focused vital national attention on the problems and accomplishments of American education." The citation further declared that "his concern for the nation, coupled with his concern for excellence at all levels of education will be long remembered."

KEYNOTE SPEAKER

Drawing parallels between Washington and the fictional land of Oz, **Dr. Byrne,** former Administrator of the National Oceanic and Atmospheric Administration and now president of Oregon State University, offered his diagnosis and prescription for getting things done in Washington.

Keynote Address

Thursday, December 6, 1984, 9:00 a.m.

ACHIEVING EDUCATIONAL SUCCESS IN THE LAND OF OZ

Presiding: Robert E. Gordon, *University of Notre Dame*
Speaker: John V. Byrne, *Administrator, National Ocean and Atmospheric Administration (NOAA), and President Designate, Oregon State University*

John V. Byrne

The title of my talk this morning results from my early experience in government, that of being confirmed by the United States Senate for the position of Administrator of the National Oceanic and Atmospheric Administration. At the conclusion of the Commerce Committee's Confirmation Hearings, Senator Barry Goldwater of Arizona said to me, "Welcome to the Land of Oz." After having spent three and a half years in Washington, D.C. as Administrator of NOAA I understand the welcome extended by Senator Goldwater.

You will recall that the Land of Oz was that magical country created by L. Frank Baum (1900), ruled by Oz, the Great Wizard. It was a dream land of questionable reality in which a little farm girl from Kansas, Dorothy, and her dog Toto, were deposited by a tornado. (Having been responsible for the National Weather Service which is charged with the prediction of tornadoes, I find Senator Goldwater's greeting particularly interesting.) Further you will recall that in order to get back to Kansas (reality), Dorothy seeks the Wizard in the Emerald City and on the way develops an acquaintanceship with a Scarecrow in search of a brain, a Tin Woodsman in search of a heart, and a Lion who is looking for courage.

After a series of adventures, they all reach the Emerald City and finally see Oz who takes a different form for each of them. They are told that "In this country everyone must pay for everything he gets . . . Help me and I will help you. I never grant without some return." (This, a fundamental rule of politics in Washington, is best not forgotten.) They are directed to kill the Wicked Witch of the West in return for which they will be granted their requests. There are more adventures, during which "the Brains" of the outfit turns out to be the Scarecrow, the most compassionate is the Woodsman, and the most courageous, the Lion. They kill the Wicked Witch of the West, return to the Emerald City and discover that Oz is in fact a Humbug, a ventriloquist from Omaha turned

balloonist. He points out to them, very truthfully, that they already have what they seek; they need only to recognize it and use it. The Land of Oz, it turns out, is very much like Washington.

There is always a danger in speaking of the federal government and the way it operates that one may be interpreted as cynical. That is not the case. However, it should be kept in mind that the environmental conditions of the federal government, and of Washington, D.C., are different from those of other places.

Washington, D.C. has been defined in many ways. One I like: "Washington is 60 square miles surrounded by reality." This is not really so. Life in this city is very real, but it is different.

As an academic coming to a political appointment in Washington, I was truly naive. I was naive about the ways of administering an agency of 12,500 employees with a one billion dollar budget. I was relatively naive about the matters of party politics. Having spent twelve years as an academic administrator in a state university, I had walked a conservative line between Republicans and Democrats. Washington is a town of Republicans and Democrats; the difference means something.

In Washington, the great importance attributed to perception, image, was new to me. Rank and protocol I had been exposed to, but never to the extent practiced in Washington, D.C. In this town perception is *almost* as important as substance.

Washington is a town of power. Some say it is a town of "scorpios." It is a town where conflict is often the mode of doing business, and compromise the result. Conflict occurs between the bureaucracy and the political appointees; a political appointee is there to make a change; bureaucracy seems to resist change. It is a town in which there are conflicts between Republicans and Democrats, between the Administration and Congress, and all too often, between agency heads and the palace guard surrounding Department leaders. One does not survive that many types of conflict without acquiring the marks of battle, scar tissue.

These characteristics of Washington, D.C. exist whether Republicans or Democrats are in power. Success, to some extent, depends on the degree to which one adapts to these environmental conditions, takes them at their value, and proceeds accordingly (you see it does sound cynical, although it is not meant to).

This Administration has its own special characteristics. The "regulars" in town, those who have been here for some time, tell me this Administration has politicized Agencies to a greater degree than have previous administrations. This may or may not be true. It is obvious, however, that the appointment of managers at levels well down into the agency does require White House Personnel Office approval. Those most favored are those who have contributed substantially to the campaign in one form or another, or who represent a friend of someone who has contributed.

This Administration is truly attempting to change the way the federal government operates. Many of the regulars indicate this is being done with some suc-

cess. Much of this change has been packaged under a program entitled "Reform 88." Reform 88 was developed during the early to middle days of the first term of the Reagan administration and is designed to reduce the size of government, to eliminate those activities which are not inherently governmental, to contract out those which can be contracted out, and to charge fees for specialized programs. During the second term of the Reagan administration one can look for attempts to manage governmental activities more efficiently than in the past. This effort may manifest itself in changes in the way research and other activities outside of government are funded, involving more control from the federal scene.

The federal deficit has increasingly been recognized as a major problem for the future. One can look forward to new approaches to reducing the deficit. These approaches will affect the funding of discretionary programs by the government. Programs on which most of us rely for funds and services are likely to be affected.

Washington, D.C., is a busy city. There is more to do than can possibly be done in the time available. The Congress is a group of dedicated, extremely busy people who rely heavily on their staffs. The "staffer" is a person of considerable importance in Washington. The substance of much of what is done on The Hill is done by Hill staffers. The substance of much of what is done in the Administration is done by the staff. General direction may be provided by Representatives, Senators, and Agency Heads (political appointees), but the actual work, and often the initiation of policy, is done at the staff level.

Accomplishing things in Washington is similar to getting things done anywhere: effectiveness is frequently in direct proportion to an understanding of the system and of the environmental conditions under which one works.

In response to a letter from Dr. George A. Keyworth, Science Advisor to the President, the Council of Graduate Schools has identified six important issues affecting graduate education and research in the United States. 1) Our national capacity to respond to problems, opportunities, and crises is eroding. 2) Talented people with the capacity for graduate work and academic careers are choosing other alternatives. 3) Facilities and equipment for research continue to deteriorate and impede both research and research training. 4) Increasing paper work and red tape drive up costs, frustrate researchers, and decrease productivity and effectiveness. 5) The total cost of research and research training are increasing. The real question is, "Who pays?" 6) Whatever the benefits and risks of university-industry relationships, private industry will not replace to any real extent the role of the federal government in sustaining the capability for research and research training.

In presenting the case for these major issues, the statement is made "We strongly agree with the compelling importance of Dr. Keyworth's statement of the national objectives of maintaining the 'ability to sustain industrial competitiveness, national security, and leadership of the free world . . . (through) scientific and technical expertise' . . . the federal role is crucial in maintaining this

core capability." Such an assessment of the issues is the first step to achieving success. A clear statement of goals is fundamental to success. The second step will be to determine how these goals can be realized; what specific objectives should be achieved which will lead to the attainment of the goals. What are the objectives essential to insuring: that our national capacity to respond to problems, opportunities, and crises does not erode; that we continue to produce talented people who choose the academic career and thereby insure the training and education of future individuals; that the facilities and equipment for research continue to be upgraded; that bureaucratic paper work is kept to a minimum; and that funding continues to be adequate to insure the system continues to function? Such objectives may require legislation, budget appropriations, and directions to the executive branch of government to carry out certain functions.

Now is the time for making a change. The time is right for achieving those goals which are truly important. In *Megatrends* (1983), John Naisbitt says "We are living in the time of the parenthesis, the time between eras . . . Those who are willing to handle the ambiguity of this in-between period and to anticipate the new era will be a quantum leap ahead of those who hold on to the past."

The time is right because we have an awareness by the public and by our national leaders of the importance of education, an awareness we have not enjoyed for some time.

"The most serious resource problem in the United States today is the education of our youth . . . We'll get out of the problems we have if we demand that our kids develop their God-given talents to the extent they can." —Admiral James Watkins, Chief of Naval Operations. (Address to Center for Strategic & International Studies, Georgetown University, 1984).

"One year after the National Commission on Excellence warned us of the 'rising tide of mediocrity' in our nation's schools, the groundwork for a new education policy for the United States is being put in place. The American people are demanding that our schools do a better job and the parents, voters, and taxpayers, who have so much at stake, are exercising the power that is rightfully theirs to insist on a higher level of performance from all who are involved in the operation of public schools, colleges, and universities. We're on our way to turning the tide." —Ronald Reagan, President of the United States (1984).

To achieve success it may be helpful to follow several simple rules. (1) Know your goals and objectives. To be successful you must know where you are going. Remember the Lawrence J. Peters law of planning, "If you don't know where you're going, you're likely to end up somewhere else." (2) Pay attention to what is happening in Washington. Graham Molitor, President and Founder of Public Policy Forecasting, Inc., makes the point "America's business environment is increasingly shaped by public policy dictates; yet despite the enormity of governmental involvement, the business community all too often waits until the last minute to focus on important issues. As a result, it comes up short in anticipating

and adapting to changes in public policy." This can be said of the educational community as well. Being alert to government trends is important. This administration is attempting to reduce government, to provide contracts for activities heretofore performed by the government. New opportunities will arise as the government phases down operations. This can be important to the educational establishment. (3) Learn to work within the system. To get anything done within Washington, D.C., you must do it Washington's way. It pays to know the staffers who are responsible for drafting legislation, who are responsible for advising their superiors. These are bright, hard-working people who can be extremely helpful. It is relatively easy to have new legislation drafted or in fact to alter existing legislation at the time of reauthorization. The staffers are the key. (4) If necessary, fight politics. Remember the words of Oz, the Great Wizard, "In this country everyone must pay for everything he gets. . . . Help me and I will help you. I never grant without some return." (5) Do your homework. Pre-wire the action. Legislative success depends on having enough votes. Line up your votes ahead of time. You may need to offer something in return. This does not mean compromising principles or taking other negative action. (6) Don't blame the federal government if you don't succeed. People in government are dedicated people who are there to serve and who want to serve. If you don't succeed at first, try again in a Washington-smarter way. (7) Be involved. In a recent article, *Science and the Public Process: Why the Gap Must Close*, Daniel Yankelovich (1984), President and Co-Founder of the Public Agenda Foundation, states "There is a troubling disparity between the scientific sophistication of our culture and its social and political backwardness, a disparity that hovers over every aspect of our civilization." He goes on to say, "In our public policy arena, professions such as law and economics are well represented while scientists are underrepresented even though their contribution may often be critical to sound policymaking . . . Sooner or later the decisions that determine our survival must be endorsed by the American electorate. In this critical but noisy process, science can play many roles. It can, for all practical purposes, be absent as an effective influence or it can be reduced to the presentation of technical testimony that trivializes the role of science. It can be muffled, confused, and naive, or it can make itself heard on the side of sanity and wisdom. Unfortunately, the lesser alternatives are likely to prevail unless science as an institution seizes the initiative in changing its unwritten contract with the rest of us."

The problems we face are urgent. Those identified by the Council of Graduate Schools in the United States must be addressed now if our nation is to continue in its role of world leadership if, in the words of Jay Keyworth, "we are to maintain our ability to sustain industrial competitiveness, national security, and leadership of the free world through scientific and technical expertise."

The issues are important. But remember, like the Scarecrow, the Tin Woodsman, and the Lion, you already have everything you need to achieve success as you come to the Land of Oz.

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   First published in the United States of America in 1900.
2. Ronald Reagan, 1984, "A Growing Consensus for Reform"
   National Forum, Volume LXIV, No. 2, p. 3, 4.
3. Daniel Yankelovich, 1984, "Science and the Public Process: Why the Gap Must Close," Issues in Science and Technology, Volume 1, No. 1, p. 6–12.
4. John Naisbitt, 1983, *Megatrends*, Werner Books, p. 304.

Concurrent Sessions

Thursday, December 6, 1984, 10:45 a.m.

1. GRADUATE RECORD EXAMINATIONS SYSTEM REDESIGN—PLANNING FOR THE FUTURE

Presiding: Clarence L. Ver Steeg, *Dean of the Graduate School, Northwestern University*
Speaker: Norbert Kubilus, *Vice President, Systems and Technology Educational Testing Service*

Norbert Kubilus

At its April 1984 meeting, the Graduate Record Examinations Board approved a recommendation from its Services Committee to undertake a comprehensive analysis of the GRE information processing system. This is the first step in a three-phase approach that will result in a new GRE system that will be more responsive to the information and service requirements of graduate institutions and their applicants.

The existing system is *process oriented,* built on the fundamental process of administering GRE tests, scoring them and reporting these scores. This process-orientation imposes limitations that have constrained the GRE system's ability to add new services. The interdependence of existing processes has driven up the cost to change or expand existing services. By using the appropriate state-of-the-art technology, GRE can move to an *information-oriented* system that will improve the delivery of scores and other services, provide an opportunity to update current services and introduce new ones, anticipate potential future services, and share in the economic benefits of the ETS common systems architecture for national testing programs.

The technologies being employed by ETS in its common systems architecture include an integrated data base management system (IDMS), electronic data communications, and local microcomputers for delivering selected services. Central to the proposed GRE system environment is a data base that will contain the information needed by the three generic uses of the system (see Exhibit 1). The GRE Operation and MIS are internal to the testing program, and analysis of their data needs is well underway. Systems design for the services to be provided requires analysis of the graduate community's requirements. The results of this analysis will drive the internal functional designs as well as final data base.

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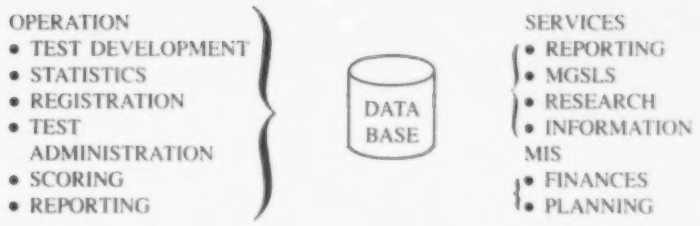
EXHIBIT 1

Proposed GRE System Environment



Two milestones were reached in October 1984 in the GRE redesign:

- ETS administered, scored and reported the first Graduate Management Admissions Test using the new GMAT information processing system, which has the same conceptual architecture and technology as that being considered for the GRE system;
- An outreach began to the graduate community to determine service requirements and perceptions that are critical to the success of the redesign and the GRE system itself.

The initial outreach, resulting from the joint planning of an Advisory Committee of the GRE Board and the ETS systems and program direction staffs, consisted of obtaining reactions to seven ideas for service enhancement or improvement. GRE Board Chairman, Dr. Clarence L. Ver Steeg, sent a letter to graduate deans across the nation soliciting their reactions. As of December 5, 1984, nearly 90 responses were received.

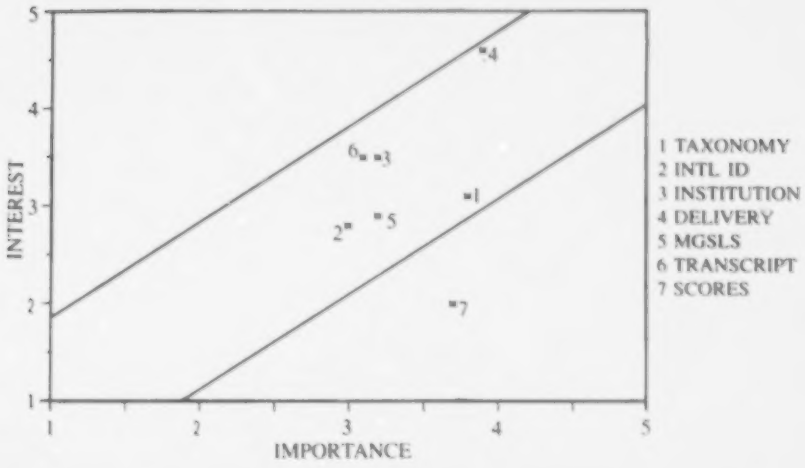
Exhibit 2 depicts an analysis of these responses which attempts to determine whether agreement exists between the percent of those responding who addressed a particular idea (INTEREST axis) and the relative IMPORTANCE respondents placed on each idea addressed. The points which fall in the diagonal band represent congruence between interest and importance, and these ideas should be considered further in the system design. Position in the congruence band is also useful for setting initial priorities.

This analysis, however, masks differences in opinions and suggestions regarding the seven ideas.

- Using 2-digit codes to identify departments on score reports has been inadequate for some time. While expanding this to a 4-digit version of the HEGIS taxonomy rated the second highest in terms of importance, there was some disagreement over which version to use. The new GRE system will utilize a 4-digit taxonomy based on HEGIS, but the actual coding scheme will require more consultation with the graduate community.
- The difficulty in matching information from foreign students—including GRE scores—to applications could be alleviated with some kind of international student identifier. There is almost an equal split between those favoring one generated by the GRE system and those who are opposed.

EXHIBIT 2

Survey Response Congruence



One alternative is for GRE score reports to include full name, birth date and country of birth or citizenship.

- Graduate schools that indicated an interest in finding out the institution finally selected by a successful applicant were almost four-to-one in favor of the GRE program's providing this service. Cost, however, was a qualifier in this support. Most of those who were opposed indicated that they had a working system for obtaining this information.
- Need for improved delivery of score reports drew comments from 92 percent of the respondents to Dean Ver Steeg's letter. A dial-up capability and computer-to-computer transmission of score reports were seen to be of greatest importance. About 15 percent of the respondents, however, asked for faster turnaround time for the existing score reports; an equal number favored more frequent mailing of score report tapes.
- On-line access for the Minority Graduate Student Locator Service (MGSLS) generated interest among about 5 percent of the respondents. Half of those who commented on extending the MGSLS to other potential graduate students favored the idea; the other half expressed concerns over diluting the original purpose of the MGSLS. This idea needs additional discussion with the graduate community—particularly MGSLS users—before any changes are made.
- The idea for a transcript analysis service for foreign students produced a split opinion. There was practically no interest in it for domestic students. Most of those who opposed the GRE program's offering this service cited

similar services already provided by other organizations or by their own institutions.

- One score report enhancement appeared in Dean Ver Steeg's letter—subscores on Subject Tests. While less than 10 percent of the respondents expressed some interest, about 25 percent of them offered a number of other suggestions for enhancing score reports. These ranged from including self-reported undergraduate GPA to coordinating GRE score reports with those from TOEFL and GMAT.

This survey was the first of several opportunities for graduate institutions to influence the service features of the GRE system redesign. The concurrent session at the annual CGS meeting, and discussions with graduate deans at regional meetings are other vehicles for input. The goal is to have a GRE system that will serve the graduate community into the 21st century.

3. THE STATUS OF HIGHER EDUCATION LEGISLATION

Presiding: Thomas J. Linney, *CGS, Director of Government and Association Relations*

Speaker: *John Dean, *Minority Staff, Subcommittee on Postsecondary Education, Committee on Education and Labor, U.S. House of Representatives*

John Dean

1. The reauthorization of the Higher Education Act will be the single most important education issue before the next Congress.

2. I anticipate that reauthorization will take place in the second session of the 99th Congress. Three major factors will influence the type of bill that the Congress will produce. First, concerns over the deficit will result in continued pressure to hold down cost increases. Because of the popularity of higher education, however, it is unlikely that Congress will support actual reductions in any of the major student aid programs. The second factor is the political environment in which reauthorization will take place. The manner in which the new Secretary of Education approaches Congress will largely determine whether the Department will play a significant role in reauthorization. Even the most respected Secretary will have trouble, however, if deep cuts are proposed, as has been rumored. Memories of 1982, when 26 Republican Members of the House went down in defeat remain fresh with many Republicans. Because of fears that 1986 could be a "Democratic year", it is likely that Members will be less willing to support the President than in past years. The third factor I call the "condition of higher education". Both the Brademas Report and the recent NIE report, "Involvement in Learning: Realizing the Potential of American Higher Education" have raised public consciousness of the challenges facing higher education. Depending on how the higher education community responds to these two and similar reports, they can be used either to justify additional financial support or to question the underlying value of the education we are already paying for.

3. The specific reauthorization issues of greatest interest to graduate and professional schools are as follows:

a) Increasing annual and cumulative GSL borrowing limits. An annual limit of $7,000 is likely.

b) Addressing the problem of the highly-indebted borrower. Defaults are likely to increase if something is not done. Among the solutions are enactment of a loan consolidation program and development of new repayment options. One possibility is enactment of an income-sensitive repayment plan.

c) Encouraging enrollment of minorities in graduate education. The Brademas report notes that of the 31,000 doctorates granted by American uni-

*Presented here is an abstract.

versities in 1981, blacks received only 3 percent, with Mexican Americans, Puerto Ricans, and Native Americans each receiving less than one percent. Congress needs to consider programs to encourage increased minority participation.

d) Expand Graduate Fellowship opportunities. In the last Congress, Rep. Tom Coleman introduced legislation establishing a new fellowship program patterned after those formerly authorized under the National Defense Education Act. The Coleman bill would make grants to institutions on a competitive basis to assist both students and the institution. Under the legislation, the grant could be used for fellowships, tuition payments, and for enhancing the quality of the academic department. Coleman intends to reintroduce the bill with minor modifications.

e) Expansion of the Javits Fellowship Programs. In the FY 1985 Appropriations bill, funds were made available for the first time for Javits Fellowships. These competitively awarded fellowships encourage the most talented students to attend our nation's finest graduate institutions. Congress needs to consider expanding the Javits Fellowship Program to include academic areas outside of the humanities.

f) The Ford bill. Rep. Ford has introduced a campus-based grant program for graduate students.

g) Increase federal support for facilities and instrumentation. The Brademas Report found that university instrumentation inventories are nearly twice as old as those of leading commercial laboratories. Congress needs to consider enacting at least a small program directed towards this problem.

4. Two other, less important issues of interest to graduate schools are:

a) Whether or not to repeal the loan origination fee for GSLs.

b) Modifying the independent student definition to make graduate and professional students presumptively independent.

5. In considering reauthorization, it will be important that a bill be produced which enjoys the consensus support of all of the higher education community. Earlier this year, the absence of such support effectively killed the Simon proposal.

6. Similarly, it will be important for the Congress to produce a bill with bipartisan support. I believe this support is a prerequisite to producing a strong bill.

7. In closing, I would urge you to become involved in reauthorization. We need your information and ideas to address your problems adequately.

4. FRAUD IN ACADEME: PROTECTING THE INTEGRITY OF THE INSTITUTION AGAINST ACADEMIC DISHONESTY

Presiding: Henry Solomon, *Dean of the Graduate School*
George Washington University
Speaker: Gary Pavela, *Director of Judicial Programs*
University of Maryland,College Park

Gary Pavela

Developing a Program to Protect Academic Integrity

1. One of the most effective ways to promote academic integrity would be to enhance the quality of intellectual life on campus. Faculty and staff members who encourage critical thinking, and who actively engage students in dialogue and discussion will create a climate in which academic fraud is unlikely to flourish.
2. Whenever possible, academic administrators should endeavor to avoid large, anonymous, lecture-style classes in which it is virtually impossible for faculty members to know and interact with students. Research indicates that academic dishonesty is far less likely to occur in small classes where there is a significant, positive relationship between students and teachers.
3. In the broadest sense, reducing and controlling academic dishonesty entails improving the campus environment for students. Perhaps the most important ingredient in such an effort would be fostering an appreciation of the college or university as a community of shared values. The willingness to affirm and enforce such values helps students to develop a sense of moral direction and to accept the responsibility to make a constructive contribution to community life. In practical terms, this means establishing a strict but fair standard of conduct for students, faculty and staff members, and enforcing that standard in an equitable manner.
4. The affirmation of shared community values must involve active participation by students, especially in developing and enforcing standards pertaining to academic integrity. For example, an ongoing committee composed of student leaders or elected representatives might be appointed to advise faculty and staff members on ways in which academic dishonesty could be reduced. While it may be unreasonable to expect most students to report other students who engage in academic fraud, it should be possible to devise ways in which academic fraud is criticized and condemned within the student peer group.
5. Procedures should be developed to assess the quality of student performance

prior to graduation. A properly administered comprehensive examination, or senior thesis, might enhance the overall educational experience for students and discourage students from engaging in long term patterns of academic fraud.

6. Faculty and staff members should also aspire to adhere to the fundamental ethical ideals which they expound to students. For example, fraud and abuse in recruiting and retaining student athletes will make a mockery of official pronouncements encouraging the student body as a whole to adhere to high standards of academic integrity. An obvious double standard in this regard has the devastating potential to produce profound cynicism about the affirmation of any moral value. Such an outcome would represent a form of negative moral education, and is the antithesis of what the college and university experience is designed to accomplish.
7. Vigorous and consistent efforts should be made to reduce obvious temptations to engage in academic dishonesty. It is important to understand that inadequate proctoring, the unnecessary use of take home examinations, and the careless distribution of official forms and documents may needlessly tempt otherwise decent students to be dishonest.
8. Faculty, staff and student representatives should be asked to develop clear and consistent definitions for academic dishonesty which will be followed throughout the campus.
9. Penalties for academic dishonesty must go beyond a simple grade penalty in the course. Otherwise, students already in jeopardy of failing the course will have nothing to lose, and a great deal to gain, by engaging in academic fraud. Some sort of transcript notation (which may be permanent or temporary) might be considered, along with a policy of routinely suspending students found responsible for academic dishonesty, unless specific and significant mitigating factors are present. The burden of presenting such mitigating factors should fall upon the student.
10. Procedures for resolving allegations of academic dishonesty must be simple and equitable. For example, faculty members might be allowed to impose a grade penalty (normally an F in the course) after meeting with the accused student. The case would then be forwarded to an appropriate university office, where additional disciplinary action would be considered. The student should be advised of the proposed disciplinary action and given a reasonable time to request a hearing. Such a hearing would be informal and nonadversarial, conducted by an experienced hearing officer, without participation by legal counsel for any party. A right of appeal need not be granted, although suspensions or expulsions might be reviewed by a senior administrative officer. Any grade penalty imposed by the faculty member should be rescinded if the student is found innocent of the charge.
11. The institution's explicit commitment to academic integrity, along with a

statement of relevant policies and procedures, should be widely disseminated within the campus community. Such dissemination might include:

a) a statement of policy pertaining to academic integrity in the application for admission. The policy statement might be signed by each applicant.

b) a detailed pamphlet containing relevant institutional policies, with specific definitions for cheating, plagiarism, fabrication and facilitating academic dishonesty. Specific examples of academic dishonesty (e.g. paraphrasing without citation) might also be provided.

c) personal discussions and sharing of written policies at freshman and transfer orientation. Special efforts should be made to advise international students.

d) publication of relevant institution policies on the front cover of official examination booklets, in the schedule of classes, the faculty handbook, and in the catalogue.

e) placing regular announcements about institutional standards pertaining to academic integrity in the campus press, especially at the beginning of school, and during examination times.

f) annual correspondence to faculty members, teaching assistants, and student leaders detailing institutional efforts to reduce academic dishonesty, reporting appropriate data or examples, suggesting improvements in policies or procedures, and stressing the importance of ongoing efforts to protect academic integrity.

12. Regular efforts should be made to reward faculty members who properly report cases of academic fraud. Even a simple letter of appreciation, signed by the dean or academic vice-president, and placed in the faculty member's file, will be at least some acknowledgement of the time and energy which the faculty member devoted to the matter.

13. Appropriate assistance should be available to any faculty member asked to appear before a hearing panel. For example, at some institutions, a part-time legally trained, "Campus Advocate" is employed to assist faculty members in gathering and presenting evidence. However, in order to avoid unnecessary legalism, the Campus Advocate should not be asked to "represent" the faculty member at a hearing, unless the accused student is allowed legal representation.

14. Faculty members must be informed about institutional policies and should be given practical advice as to how to prevent academic dishonesty. It would be best if such information were made available in the faculty handbook and specifically called to the attention of each new faculty member. Advice as to how to prevent cheating and plagiarism might include:

Cheating

a) The course syllabus should contain a statement alerting students to the institution's academic integrity policies and affirming the teacher's intention to abide by them.

b) Different examination questions should be used each term or semester.

c) Teachers should supply official examination booklets at examinations.

d) "Take home" examinations should be avoided, unless student collaboration is desired.

e) The use of standard examinations contained in teacher's manuals should be avoided, since resourceful students are often able to obtain such publications.

f) Graduate assistants or student graders must not be given a solutions manual for the entire course.

g) Both questions *and* answers on "short answer" examinations should be scrambled, especially in large classes.

h) Students in large classes should be required to show proper identification before taking examinations.

i) Students should be expected to write their names on examination booklets in ink.

j) Students might be seated randomly in examinations, but examination booklets should be gathered by row, so seat location can be determined, if necessary. It is especially important to prevent groups of students from entering the examination room together and sitting near each other.

k) Examinations must be carefully and diligently proctored by an adequate number of proctors, unless an effective "honor code" has been officially adopted by the institution.

l) Students should be informed before the examination that significant numbers of completed examinations are photocopied before being returned to students. Such a practice may discourage students from altering returned examinations and submitting them for regrading.

m) Athletic officials at some institutions may ask instructors to modify grades in order to maintain student athletic eligibility. Such requests constitute a serious form of attempted academic fraud and should be reported to appropriate academic administrators.

Plagiarism

n) Teachers should avoid assigning identical paper topics each semester.

o) Students assigned to write substantial papers might also be asked to give a relevant oral presentation to the class and to respond to questions from the teacher and other students. Such a practice also has the educational value of giving students some additional experience in speaking before a group.

p) Students assigned to write substantial papers might be required to meet at least once with the instructor in order to review the topic and to discuss the ongoing research which the student has undertaken.

q) Instructors might require that an outline and a first draft be included when students submit major papers.

r) Occasional in-class writing assignments might be given, so instructors will have some familiarity with the basic writing style and ability of each student.

s) Students should be informed that photocopies of papers will not be accepted.

15. Faculty members will also need specific advice as to how to conduct themselves when they observe academic dishonesty. For example, in minor cases of apparent cheating, it might be appropriate to issue a general warning to the class (e.g. "please keep your eyes on your own papers"). If the problem persists, the faculty member should arrange to speak privately with the students involved; their identities should be ascertained and they should be informed that the matter will be reported. The faculty member should make careful notes of what was observed, including seat locations, and names of potential witnesses. Generally, the students should be allowed to complete the examination. Finally, the faculty member should confiscate "crib sheets" or related material, but must not use any physical force to do so.
16. A convenient means should be available for students to report academic dishonesty. Several campuses use a telephone "hotline" for this purpose. Anonymous reports might be accepted, but disciplinary action should not be based on anonymous reports alone. Prompt written reports of each telephone contact should be forwarded to the chair of the appropriate academic department. Such a practice would enable administrators to detect apparent patterns of academic dishonesty in particular courses.
17. A specific individual or office should be responsible for coordinating efforts to reduce and control academic dishonesty. The occasional "reform" efforts on some campuses (usually engendered in the aftermath of a widely publicized incident) are dissipated as time passes and as attention is devoted to other problems. The effective control of academic dishonesty requires regular monitoring of relevant data, analysis of the effectiveness of institutional policies and procedures, and frequent communication with faculty, staff and students.
18. The deterrent effect of punishment is lost if the community is unaware of the penalties which are imposed for academic dishonesty. Regular announcements of case results should be published in the campus press, with all identifying information deleted.

Concurrent Sessions

Thursday, December 6, 1984, 2:00 p.m.

5. ENHANCING THE ROLE OF THE GRADUATE DEAN IN THE PLANNING PROCESS ON CAMPUS

Presiding: Carole Wharton, *Director of Capital Planning, University of Maryland*
Speaker: Richard B. Schwartz, *Dean of Graduate School, Georgetown University*

Richard B. Schwartz

Let me say that in general I am in agreement with Dr. Haas's presentation, but my perspective is slightly different. In elucidating a few points I hope to sharpen the issues slightly by presenting them in different terms.

I would begin with the position of the graduate dean. It is true that he or she is often without a budget or faculty and though armed with the potential to exercise moral suasion can, in fact, be either an invisible man or a voice crying in the wilderness. On the other hand, since the *undergraduate* dean's budget is likely to be largely committed at the outset of the academic year and linked to a set of noxious entitlement programs like departmental supplies-and-expenses budgets, the undergraduate dean is often in the position of a house-poor homeowner: rich on paper but with little or no disposable income. When the suppliants appear at such a dean's door (or storm his battlements), he has little or nothing to offer them. This casts him in the role of a parsimonious philistine, unable to react to exciting opportunities and incapable of redressing palpable grievances.

The graduate dean, on the other hand, is often given a modest discretionary budget for such activities as the internal support of faculty research. Many deans do possess such a budget; all should. This budget of loose money, which is sometimes doled out in hundreds, can often make the difference on the publication of a book, the subsidy for a journal, or the honorarium for a speaker. This casts the graduate dean in the role of the dispenser of largesse—poor, perhaps, but making the difference on issues close to faculty hearts. Moreover, since the graduate dean is generally not faced with the onerous task of balancing the college budget, his office frequently appears to be the only bastion of sanity and true *academic* judgment in a world gone mad with planners, statisticians, enrollment counters, and managers of administrivia.

Since many faculty conceive of their efforts at the *graduate* level to be of

primary concern, the graduate dean is seen as the person closest to the most important issues. Since he is not tarred by the association with more mundane concerns and since his responsibilities cut across the whole university, he can often occupy a bully pulpit from which he can make pronouncements on academic quality. Without a budget and faculty he has no axes to grind, no special cases to plead. His judgment remains pure. While his harried undergraduate colleagues struggle to allocate scant resources and are forced to say *no* more often than *yes*, he commiserates with the faculty. Moreover, since the policies of foundations and federal agencies are clearly beyond his control (though constantly on his mind), *he* is not tarred by any naughtiness on their part. Again, he can *commiserate*, rather than dodge the slings and arrows of outraged or outrageous researchers.

The unique position of the graduate dean carries over to the question of planning. Within the university, decisions can be made in several ways. Dr. Haas has focused on one manner; I would like to stress another.

"Normal" governance systems within universities (and by that I mean such bodies as departmental and college executive committees, faculty senates, and standing committees) are often *political* in their nature. They are a part of a system of checks and balances; they advise and consent; their members represent identifiable constituencies. They add the *sine qua non* of *consensus* to the planning process, but they sometimes make lowest-common-denominator decisions, i.e., decisions with which all can live.

Graduate school governance, on the other hand, is (or should be) far closer to academic peer review processes. Research committees, university press committees, and program review committees, for example, offer their best academic judgment (or should) with minimal attention to campus politics. When such bodies are politicized, they lose all credibility and their actions are rendered nugatory. Thus, as a graduate dean, I would favor a university planning process that is two-tiered. There must be some consensus and there must be broad consultation. There, normal mechanisms and structures can be employed. However, there comes a time when judgments must be made on the merits rather than on political grounds and it is at that point that one needs a committee with tough-minded faculty willing and able to make decisions for the university as a whole, offering their judgments as individuals rather than as members representing a constituency. Since this mode is closest to the ethos of the graduate dean, he can play a key role in this phase of the overall planning process.

Now, a few random comments:

Ongoing planning is a common desideratum. One way to accomplish that is constantly to collect and share the sort of data generated by major review or planning efforts. In such efforts, resource allocation follows the deliberative process. The grist for the deliberative process—the data—should be collected on an ongoing basis, so that programs constantly see such things as the depth of their applicant pools, the quality of their matriculants, the success of their placement efforts, the judgment of their peers in national reputational surveys, and

the productivity of their faculty. Once it is clear that such data can have results (both positive and negative), attention is focused on the development and maintenance of quality. Such data often demythologize the perceived campus situation by revealing unexpected strengths and hidden weaknesses.

The question of *result* is an important one. Planning processes will be taken seriously (in my judgment) in direct proportion to the visibility of those processes' results. Nothing shocks and surprises the academy with greater force than the realization that deliberations can have consequences and that those consequences can have effects which alter the university and the lives of its denizens in perceptible ways.

In that regard, the planning process risks analogy to another Dickens novel, *Bleak House*, in which a case in the old court of Chancery is protracted to the point that the entire estate in litigation is dissipated by the legal process itself and all hopes of meaningful inheritance are dashed while the lawyers are supported in style. I will not trace out the analogy, for we all share it as a recurring nightmare.

I believe Dr. Haas's point concerning creativity is a good one, but I would point out that much of our academic agenda can be set by the economy, by student psychology, by federal policy, and by foundation and industrial interests. Proper planning can mitigate the negative effects of those pressures. To the extent that an institution can define what it seeks to do, it can guard against doing what it really does not wish to do, even though financial targets of opportunity present themselves and attempt to lure us into doing something for the sole reason that money is available for it.

On the matter of competition with peer institutions—it is also, of course, advantageous to stress one's own institution's history and traditions. On the one hand, they are bound to be used against you by those who resist change, so it is advisable to associate yourself with those traditions first. More important, the university's comparative advantages—on which planning usually builds—are generally a direct result of the university's traditions.

Finally, there is the most sensitive issue of all: the planning process that dies a sudden or lingering death because the results of that process prove unpalatable to those in a position to implement the process' recommendations. The issue is sensitive because the most obvious way to prevent it is to so establish the mechanisms and agendas that the conclusions will be forced at the outset. This reduces an already arduous process to an exercise which many will perceive as dishonest.

This is not to suggest that some parameters should not be clearly established at the outset. Otherwise, one risks an open-ended series of discussions at a high level of abstraction that vitiates the process just as surely as does the paralysis-through-analysis syndrome brought on by those who either cannot reach conclusions or are anxious to forestall them.

One way to mitigate the problem is to develop a clear sense of the institution's situation in advance so that the possible scenarios that might emerge from the

planning process are, to the extent possible, foreseen. Secondly, if a two-tiered process is employed, the discussion can be focused and the desired questions posed before the final deliberative process is undertaken. In other words, if the President or Chancellor does not believe that the addition of a new school or two is the solution to the institution's problems, he could charge the ultimate deliberative body to make recommendations with regard to *present* units within the university, rather than future ones or possible ones. Finally, those individuals most concerned with the results of the process can meet with the deliberative bodies and keep their points of view and concerns on the table, in full view. That will forestall surprises as well as apprise the faculty of what is likely to work and what not, what is likely to be funded and what not, and what is likely to be approved by the Directors, Trustees, or Regents—in other words, what the President, Chancellor, Provost, or Vice President for Academic Affairs is likely to recommend to them.

Without belaboring Dr. Haas's point, one must also agree that *persistence* is likely to be a cardinal virtue in such an undertaking. However, we can solace ourselves with the fact that as difficult and time-consuming as a planning process can be, it is nirvana itself when compared with its absence and the *ad-hoc-ism*, the anarchy, the blind-siding, and embarrassment which result.

6. PRACTICES AND PROGRAMS TO IMPROVE PERFORMANCE OF GRADUATE ASSISTANTS

Presiding: C. W. Minkel, *Vice President and Dean of the Graduate School, University of Tennessee*

Speakers: *Marilyn Baker, *Associate Dean, University of Southern California*

†Jacob Goldhaber, *Acting Dean of Graduate Studies and Research, University of Maryland College Park*

†W. Lee Humphreys, *Director, Learning Research Center, University of Tennessee, Knoxville*

Marilyn Baker

WHAT USC DOES

There are essentially three strategies which USC uses to improve the "plight" of Graduate Assistants.

1. Graduate Assistant Orientation

Every fall we offer a half-day orientation for new Graduate Assistants. The program is held during registration week and lasts one-half day.

2. Graduate Assistant Handbook

Our most important strategy to help Graduate Assistants is to publish an annual Graduate Assistant Handbook. The Handbook is based on policies developed by a Graduate Assistants Committee (composed of faculty, graduate students, and administrative staff). It is distributed at Orientation and then separately to all Graduate Assistants, department chairs, and graduate student advisors. We have kept the Handbook skinny and rather terse. I think it stands a better chance of being used if it is manageable.

The contents of the Handbook are fairly straightforward. The *policy* section outlines stipend levels, workloads, requirements for appointment and renewal, benefits, and responsibilities. The *procedure* section is primarily for the departmental representatives who prepare paperwork for Graduate Assistants: how to get the paperwork through the system, budget restrictions on accounts, what can go wrong, etc. Essentially the Handbook records in one place practices which have been informal but secret in the past, and policies which standardize Graduate Assistant appointments across departments and disciplines. At USC, for

* Abstract given here. Copy of complete presentation available from author.

† Abstract given here.

example, Graduate Assistants are paid the same and have the same benefits regardless of where they hold their appointments.

In terms of the specific policies, I will comment here on only two:

1) We have taken more seriously the academic requirements for a student to hold a graduate assistantship. In order to hold an assistantship, a student must remain full-time, make reasonable progress toward completing the degree, and maintain a minimum 3.0 GPA; also, the student usually can hold an award for no more than four years.

2) In addition to the traditional Teaching Assistant and Research Assistant categories, we have created a third category called Assistant Lecturer to recognize those students who are actually teaching classes on their own. Students find the "Assistant Lecturer" title very useful for their resumes, and they appreciate the modest additional stipend they receive (approximately $300 per year).

3. Graduate School Advisement

The third strategy for improvement of Graduate Assistant performance at USC has been to identify one central office—in our case, the Graduate School—where students know they can go to get clear answers on policy and advice on individual problems. Often they just need to know what their rights are so they can assess whether they have been treated fairly and know how to go about protesting, if necessary.

WHAT ELSE WE PLAN TO DO

In recent years, we have made significant progress on clarifying the rights and responsibilities of Graduate Assistants, but there are several areas we still need to work on:

1) TA Training. Some departments have training programs for their TAs, but many do not. USC has no central program for TAs which acquaints them with basic teaching techniques, how to deal with students, grading policies, etc.

2) Handbook on Teaching. What is missing from our current Graduate Assistant Handbook is a section on teaching: suggestions for good teaching techniques, information on grading policies, war stories from previous TAs, etc. We plan to publish a separate handbook on teaching for TAs and ALs only, which should need updating only every few years.

3) English Language Proficiency. We have recommended that the University require all international TAs whose native language is not English to take the Test of Spoken English (TSE) offered by the Educational Testing Service *before* they come to campus. Those who score below 200 will be given non-classroom teaching duties (e.g., grading or preparation of teaching materials) and will be required to take a special English class. Those who cannot take the TSE in their home country will take SPEAK (a retired version of the TSE) when they arrive on campus.

4. Health Insurance. We have proposed that the University cover the cost of our basic student health insurance for all Graduate Assistants and provide a partial subsidy toward the cost of major medical coverage. This benefit must be increased, of course, without cutting into the funds available for stipends.

PROBLEMS WE HAVEN'T SOLVED

First, we have enormous pressure from students and faculty to allow Graduate Assistants to work more than half-time—either on campus or off. After years of complaints by faculty and students—interspersed with cries of "paternalism"—we have loosened the policy to *recommend* no more than 50% work, but not prohibit it.

Second, we continue to struggle to maintain standard stipend levels for RAs in the face of grant funding which is higher or lower than the standard rates allow. Right now we won't allow faculty to pay RAs less than the minimum rates (that is pure exploitation), but we do allow them to pay more if the entire department chooses to adopt a higher rate schedule.

Finally, we are concerned about the tax status of Graduate Assistant tuition benefits, which are protected from taxation through December 31, 1985, but not beyond. At USC graduate tuition is over $7,000 per year. Taxing that benefit will more than offset our modest attempts at stipend increases or health insurance benefits.

Jacob Goldhaber

Graduate assistants are a vital national resource whose presence on a campus entails risks, rewards, and great responsibilities. Since these students are the intellectual leaders of tomorrow in all fields of science and the humanities, the rewards for preparing them to pursue research and academic careers are evident. There are risks involved, however, in that we ask them, often novices themselves, to be teachers of the intellectual leaders of the following generation, that is the undergraduates. The responsibility to multiply the rewards and contain the risks belongs clearly to the administration—to the graduate schools, the departments, and finally, the whole university. Undergraduates have an absolute right to sound, competent (if not brilliant) instruction, and graduate students have a right to a teaching experience that is at least as educationally beneficial as it is financially useful. To foster the quality teaching that is the guarantor of these rights, administrative structures must be set up that address the needs and special problems of these apprentices.

At the University of Maryland College Park, we have a variety of programs that offer support or instruction to our graduate teaching assistants, ranging from a special program for foreign graduate teaching assistants to specific departmental programs that focus on discipline-related skills, to a campus-wide program

that stresses the importance of the graduate assistant in the teaching mission of the university. I will discuss the program in this order because today the non-native speaker who is also a teaching assistant offers perhaps the greatest challenge and certainly requires the largest commitment of new resources.

PROGRAM FOR NON-NATIVE GRADUATE TEACHING ASSISTANTS

With approximately 160 new foreign graduate assistants a year, at UMCP we have had to deal with the problems of preparing teaching assistants for the classroom when they have a mastery of English that is not adequate for their roles as teachers. In an effort that has been coordinated at central administration levels, the campus now has a two-part program: the first step is to identify those new foreign teaching assistants whose lack of proficiency will hinder their teaching. All foreign graduate students who will be assuming any instructional responsibility, with a few very limited exclusions such as students teaching in their native language, are required to undergo a five-day evaluation by the Maryland English Institute, a self-supporting unit within our division of Arts and Humanities. A special letter from the dean is enclosed in the initial offer of an assistantship which states that the evaluation and any subsequently required courses will be a mandatory part of the assistantship. Departments are warned that students who have not been evaluated may not be allowed to serve in a classroom.

Served by a professional staff of 14, the Maryland English Institute conducts a five-day orientation and evaluation program just prior to the fall and the spring semesters. All students are given an English proficiency test (the Comprehensive English Language Test), a writing test, an FSI-type interview, and a listening dictation test. In addition, they are required to present two brief videotaped presentations on a general topic in their specific discipline for self-review and evaluation followed by an individual conference with an MEI instructor. After the evaluation a two-page summary report is issued both to students and departments indicating approval, recommendation of a semester-long pronunciation course, or recommendation of a semester-long semi-intensive English language course. The Graduate School pays the $155 evaluation fee for each student participating in the program.

Once the students with problems have been identified through the regular evaluation, or a shorter make-up, they are then assigned to either the pronunciation or semi-intensive course and must complete the course satisfactorily before they may assume classroom responsibilities. These courses are taught by the staff of the Maryland English Institute, and the fees ($150 for pronunciation, $880 for semi-intensive) are paid by the Graduate School. In this interim, the students are supported by the departments and assigned responsibilities that don't involve instruction of undergraduates. After a student has passed the remedial course required, he or she may then be used in the classroom. The Institute has arranged

for follow-up visits to observe the adequacy of the training, and of course the departments incorporate these graduate assistants into their own departmental training and monitoring programs. With the cooperation of the Office of International Education Services, which processes foreign student applications, the Maryland English Institute, the individual departments, and the Graduate School, we think we have developed a program with a viable system for identifying and correcting problems with foreign graduate teaching assistants.

DEPARTMENTAL PROGRAMS

Special, campus-wide programs are necessary to deal with problems posed by foreign graduate teaching assistants, but it is in the individual departments that the majority of our 1,539 graduate assistants are transformed from novices into accomplished instructors in a particular discipline. In small departments that employ few assistants, training occurs in a one-to-one personal relationship between the teaching assistant and the supervising professor. In departments with larger numbers of assistants or requirements for special skills, formal structures for training and supervising new teachers are essential. Two of our programs that employ large numbers of teaching assistants are English, with about 90 graduate assistants a year, and Mathematics, with almost 120 graduate assistants annually. Their programs are representative of the type of support structures we feel are necessary for first-year graduate teaching assistants. In the English Department, the Director of Freshman English coordinates a training program that begins with a week-long summer orientation, during which time new teaching assistants are briefed on teaching composition in a series of colloquia and demonstrations by experienced teachers. In addition, supervised workshops on correcting and grading student themes are held daily. New teaching assistants must also enroll in an upper-level course, "Approaches to College Composition," which reviews the rhetorical, linguistic, and logical bases for composition. At the heart of the training experience for new graduate assistants is the Master Teacher program, whereby four or five new graduate assistants are assigned to an experienced instructor for supervision during the entire first year. Master Teachers hold weekly meetings, visit the classes of teaching assistants and regularly review teachers' grading of student themes.

In the Mathematics Department, two members of the professional staff, instructors with special expertise in teaching mathematics, oversee a carefully-structured program that opens with a week-long orientation on skills in teaching mathematics. This program makes extensive use of videotaping and peer review, followed by self-evaluation and conference with the instructors to help new teaching assistants develop and perfect techniques. During the year, the directors of the program monitor classroom performances and assignments and confer with the new teaching assistants on a regular basis.

CAMPUS-WIDE SUPPORT

With special programs for foreign teaching assistants and often elaborate structures of support at the departmental level, what is left for a campus-wide office like the Graduate School to offer? First, we let them know their rights and restrictions. A primary resource for all graduate teaching assistants is *The Graduate Assistant Handbook*, a policy manual that focuses only on teaching and research assistants and is up-dated annually and distributed to all graduate assistants. Included in the *Handbook* are sections on contractual policies (conditions of appointment, termination, etc.) and benefits. In addition, an entire section puts forth all academic regulations that govern undergraduates—regulations such as grading policies, withdrawal policies, grievance procedures, etc. Information is also provided on campus service units (reading and study skills laboratory, counseling center, career center) to which undergraduates may be referred.

Second, we offer them an opportunity to meet with their colleagues from other disciplines in a campus-wide graduate student orientation prior to the beginning of the fall semester. The morning session is devoted to teaching and includes group discussions on topics such as exams and grading, course preparation, and first-day jitters. Both the graduate and undergraduate deans personally welcome the graduate assistants and stress the importance of their role in the teaching mission of the university.

Finally, the Graduate School gives graduate teaching assistants special recognition with our "Distinguished Teaching Assistant Awards." At the final meeting of the Graduate Council in the academic year, a student from each of our five divisions is awarded a certificate and a $250 check in recognition of services in the classroom. These students are then honored at a wine and cheese reception that is again our way of emphasizing the very crucial and valuable contributions graduate teaching assistants make on our campus.

W. Lee Humphreys

A concern for the quality of undergraduate instruction brings me to address this session of the Council of Graduate Schools. I believe that efforts to improve undergraduate academic programs must begin in graduate studies. I wish to describe an initiative undertaken in this regard by the University of Tennessee in Knoxville.

In 1979 the UTK Faculty Senate established through its Faculty Development Committee a seminar on teaching for GTAs. Funds were provided by the Office of the Vice Chancellor for Academic Affairs (now the Office of the Provost). The program has since been institutionalized by making it one of the instructional development activities of the Learning Research Center. The Director of the LRC chairs the Steering Committee that designs and evaluates the seminar.

The Seminar seeks to address two fundamental concerns:

1. Since GTAs at UTK have partial or total responsibility for teaching of a wide range of courses, especially at the lower divisions of the undergraduate level, efforts to enhance their instructional efforts should improve significantly the academic program at the university. This seems especially critical in a period of concern for the retention of capable students, for GTAs often have the first sustained instructional contact with undergraduates. There are strong indications that the quality of a student's initial course experience impacts not only whether the student will continue, but the quality of later work.

2. Many graduate students—most in a number of fields—will become professional academics. Graduate training, as professional training for academics, is now centered on the development of research capabilities. Little sustained attention is regularly given to teaching as a part of one's professional training or objectives. This occurs in spite of evidence that many of today's graduate students will be placed in contexts where teaching expectations will be heavy and range over a broad spectrum of courses.

The UTK GTA Seminar has two segments:

1. An intensive four-day introduction for all participants to a number of instructional activities and contexts for reflection upon teaching.

2. Participation in two small groups that meet through the fall quarter, each designed to build upon the material presented in the first segment in the context of the GTA's own discipline and specific teaching assignments.

Segment one involves a range of presentations to the total group as well as smaller discussion groups. Each day has a particular theme:

Day 1: The UTK Student and UTK: The nature and characteristics of students at UTK—entering freshmen, upper class undergraduates, graduate students, and international students—are considered along with resources available to help instructors in working with them. A special session is held for international GTAs in conjunction with a retreat for all foreign students sponsored by UTK's Center for International Education.

Day 2: Strategies for Instruction: Reviews of learning styles, communication in the classroom, and course planning is accompanied by tips on such instructional activities as lecturing, leading discussions, using media, lab work, use of computers, and performance oriented work in courses.

Day 3: Assessment: Both aspects of assessment are considered—assessment and evaluation of students (testing and grading), and the evaluation of courses and instruction by students, peers, self, and others.

Day 4: Images of the Teacher-Scholar: Several contexts for teaching and reflection on teaching are offered through considering the nature of a baccalaureate program, the relation of professional and liberal learning, of general education and the major, and the needs of entering undergraduates. Panels of outstanding teachers and award-winning GTAs field questions from the Seminar participants.

Each day provides a balance between general presentations to the whole group and smaller group meetings. The latter offer a context for interaction between

seminar members and with the leaders. Each day participants select two or three discussion groups that best meet their specific assignments and responsibilities from an offering of five or six. Thus we seek to take account of the wide range of instructional activities in which different GTAs must engage.

This segment of the seminar ends with a wine and cheese reception bringing the GTAs together and recognizing them as an essential part of the instructional staff of the university.

Emphasis on their part in the instructional efforts of the university is further developed in the two small group meetings to which each is assigned.

One group is led by a member of the Steering Committee for the GTA Seminar and is devoted to discussion of issues that arise in the course of their teaching in the fall quarter. Problems encountered in initial teaching efforts are shared, journals are kept, and audio and/or video tapes of the GTA's actual instruction are reviewed in individual conferences.

The second group is led by a departmental coordinator and is designed to consider instruction in terms of the nature of the GTA's specific discipline and the particular needs of the department of which he or she is a part. It also deals with the issues that arise from the dual role of the GTA as both part of the professional instructional staff and as student.

Some large departments or units at UTK design their own training for GTAs and the Seminar is not designed to replace those where a critical mass makes such efforts desirable. At present the GTA Seminar is required by a few departments or colleges and recommended by others. Three hours of graduate academic credit is awarded on a Pass/No Credit basis.

Faculty, deans and central administrators from across the campus make presentations to the Seminar and lead discussion sections. Representatives of several colleges serve on the Steering Committee and as group leaders. Departments whose GTAs take part are asked to name a coordinator to lead the discipline-based small groups.

Future goals center on further fine tuning of the Seminar to meet the diverse assignments of GTAs from many distinct disciplines, expansion of GTA participation, and making the program an essential and regular part of professional graduate training at UTK for those who teach as graduate students and those who will enter academics.

In this way the seminar will continue to play a role, not only in the enhancement of instruction on the UTK campus, but in providing more balanced preparation of those who will enter academic professions in the future.

The outline for the seminar and a handbook are available through the Learning Research Center, 1819 Andy Holt Avenue, University of Tennessee, Knoxville, TN, 37996–4350.

7. GRADUATE EDUCATION'S PARTICIPATION IN TEACHER PREPARATION

Presiding: Dale R. Comstock, *Dean of Graduate Studies and Research, Central Washington University*
Speaker: Leslie M. Thompson, *Dean, School of Graduate Studies, Texas Woman's University*

TILTING WINDMILLS: OR, CSGS THROWS ITSELF INTO AMERICA'S CRISIS IN EDUCATION

Leslie M. Thompson

I have been asked to discuss initiatives taken by the Conference of Southern Graduate Schools during the past two and a half years to deal with some of the issues surrounding the debate on teacher education. In particular, I have been asked to provide a brief overview of the work done during this time by the CSGS Task Force on Teacher Education. Given the voluminous literature on this topic, I hope I will fare better than the author of whose manuscript Dr. Samuel Johnson said, "Your manuscript is both original and good. But the original part is not good and the good part is not original." At least, I hope that my remarks on this subject are not reminiscent of those of the minister who was told by a parishoner leaving the sanctuary: "Reverend, I do not know how you do it, but every one of your sermons is better than the next."

The CSGS Task Force was established in 1982 and chaired by Dean David Roselle of Virginia Tech. The committee consisted of three deans of education and three graduate deans plus Dr. Eva Galambos from the Southern Regional Education Board. Early in its deliberations the Task Force realized that a small group with minimal support and a short time in which to work could hardly engage in serious research or deal meaningfully with the broad social issues concerned. As one member said, "We must avoid taking initiatives that are beyond our capacity or our prerogative. We can whittle away at the grander issues over a period of time, but for now let's settle upon some practical matters and try to deal effectively with them."

With this injunction firmly in mind, the committee decided against a new study. Rather, it focused on developing workable, pragmatic recommendations. As one of its primary objectives, the committee decided to endorse and in some instances expand on certain of the recommendations made by the Southern Regional Education Board in its report entitled *The Need for Quality*, which addresses the need to improve the quality of education at all levels. According to SREB, the priorities of the report are to:

a) Improve the quality of teachers and other school personnel;

b) Improve the curriculum at the secondary and post-secondary levels; and
c) Coordinate among the various sectors of education.

The Task Force agreed with the SREB report that "improvements in the teaching profession depend not only on tighter selection and preparation of teachers but also on public respect and financial rewards for teachers."

The Task Force's report was presented to the 1983 annual meeting of CSGS as a written report and also as part of a concurrent session. The written report contained four major parts, the first of which dealt with the general concerns relating to admissions and quality control. In particular, the Task Force recommended:

1) Colleges must be sensitive to helping teachers meet recertification requirements, but applicants for master's and doctoral programs in education should be required to present qualifications for admission equal to those required of applicants for other degrees. Thus, the quality of the applicant's undergraduate institution, undergraduate grades, letters of recommendation, and Graduate Record Examination scores should be comparable to those of applicants for other degree programs.
2) CSGS member institutions should also provide help to teachers to satisfy the certification requirements imposed by state departments of education. But admission for the purpose of meeting certification requirement should be a separate consideration from admission to a graduate degree program. It is recommended that teachers seeking certification credits be encouraged to enroll in courses related to their teaching assignment—whether or not they are in graduate courses. Moreover, it is recommended that enrollment in graduate courses by teachers seeking certification credits be permitted only on a pass-fail basis and that such credits not be permitted for degree requirements.

The Task Force also singled out for comment and endorsement those SREB recommendations which offer the greatest potential for cooperation between graduate deans and deans of education. In addition, the report discussed potential areas of cooperation between graduate deans and deans of education. The report concluded with the general philosophical recommendation that to achieve these noble objectives, there must be not only an improvement in practice, but also a significant improvement in such areas as: working conditions for teachers, high school graduation requirements, and entrance requirements into graduate programs in education.

Task Force members for 1983–1984 consisted of Leslie M. Thompson (Chairperson); William J. Cooper, Jr., Dean of the Graduate School, Louisiana State University; Dean C. Corrigan, Dean, College of Education, Texas A & M University; Eva C. Galambos, Staff Director, Task Force on Higher Education in the Schools, Southern Regional Educational Board; Renee Dobbins, Assistant to the Vice Chancellor and Dean, The Graduate School, University of North Carolina at Chapel Hill; William S. Livingston, Vice President and Dean of Graduate Studies, University of Texas at Austin; Paul F. Parks, Vice President for Re-

search and Dean of the Graduate School, Auburn University; and Everette Witherspoon, Dean, School of Education, Tuskegee Institute.

At its first meeting in the SREB offices at Atlanta, the Task Force dealt at length with its limitations. What can graduate deans hope to accomplish? Why should graduate deans try to do anything about this matter? The Task Force did, however, see the time as an opportune one for cooperative practical endeavors since vast political, social, and economic forces are at work, causing colleges and universities to rethink their views on teacher education. In deciding what initiatives to take, the Task Force agreed with Shelley's statement from *A Defense of Poetry* where the bard says, "We have more political and historical wisdom than we know how to reduce into practice." Consequently, we decided to continue the policy of striving for practical goals. The Task Force agreed to seek some additional new input while focusing primarily on pragmatic strategies.

The graduate deans and deans of education used their contacts to gather information. A letter was sent to the Commissioners of Education in each SREB state to ascertain current initiatives and future plans. We sought information concerning initiatives by foundations, individual institutions, and agencies. We also received a great deal of information from the American Association of Colleges for Teacher Education, SREB, and other organizations and agencies. As an attempt to build on the previous year's work, we disseminated the recommendations from the previous year for comment and action. We contacted a person in at least ten different states and asked that person to insure that these recommendations were debated within the state. The deans of education on the committee also disseminated these recommendations for comment by deans of education. We saw particularly the need to get graduate deans concerned about and involved in this issue and to create a dialogue between graduate deans and deans of education on this matter. This was, we felt, a matter of great importance and one in which the graduate deans could have a major input.

The Task Force presented to the 1984 annual meeting of CSGS a full report plus a two-page abstract of the report. The report from 1983 engendered a lively debate which was in itself more significant than the particular recommendations of the report itself. The work of the Task Force indicated that many graduate deans feel they are essentially powerless to do anything about the current problems in education. The Task Force does not believe this is true, and in fact there are many examples that would indicate the ability of graduate deans to effect positive changes.

The first part of the report, which deals with reactions to last year's recommendations, contains the following major points:

1. There is almost universal agreement that applicants for graduate programs in education should present admission qualifications equal to those of applicants for other degrees.
2. There was almost universal rejection of the recommendation that courses for recertification be graded on a pass-fail basis. Many respondents noted,

for example, that the acceptance of recommendation number one negated the need for recommendation number two.

3. Most respondents agreed that in-service training or staff development could best be performed by college and university personnel, but there was considerable disagreement as to the part such service should play in college and university reward systems.
4. Graduate deans seem to indicate a growing awareness of the need for applied research relating to the problems and opportunities confronting public schools, but several people indicated the need for improved research in this area. Almost unanimously, the respondents agreed that the failure to recognize such research in salary and promotion procedures would result in inferior research unlikely to be helpful in improving the quality of education.
5. Numerous people commented upon the needs for colleges of education to work toward achieving a greater professional identity for themselves.
6. There was considerable difference of opinion between graduate deans and deans of education concerning the value of professional education courses, or methodology courses, which were frequently deemed by the graduate deans to be inferior courses. To a large extent, this difference seems to arise from a general lack of knowledge on the part of many graduate deans concerning the significant changes that have been made in many of these courses at progressive institutions during the past five or six years.
7. There were considerable differences of opinion not only between graduate deans and deans of education but also between persons within these groups concerning the value and importance of professional certification.
8. The deans of education and graduate deans in Kentucky as well as those in other states noted the need for greater collaboration between school systems and universities in retraining of currently employed teachers.
9. Several groups also mentioned the need to ascertain which institutions are qualified to offer quality education programs.

The second part of the Task Force report deals with the initiatives now underway throughout the CSGS region to improve the quality of teacher education. The University of South Carolina, for example, has discontinued baccalaureate degrees in the college of education and replaced them with a plan whereby students who want to become teachers must complete a regular BA or BS degree in the subject matter, or an interdisciplinary area concentration for a Bachelor of Interdisciplinary Studies if a more general type of certification is envisioned. Dr. Paul F. Parks chaired a joint committee of graduate deans and deans of education in Alabama to work toward the improvement of teacher training programs. The committee has made recommendations concerning minimum admission requirements for all graduate students in professional education programs for public universities in the state of Alabama.

Committee members also made individual reports. Dean Everette Witherspoon prepared a survey indicating initiatives now being taken by NCATE to

improve the quality of graduate programs in education. Eva Galambos and Lynn Cornett of SREB gathered information concerning regional and national efforts to attract Arts and Sciences graduates into teaching. Dean Cooper compiled a comparison of teacher certification requirements in several SREB states. Renee Dobbins prepared an excellent report which discusses initiatives now underway at the University of North Carolina at Chapel Hill and also throughout the entire state. The final portion of the report provides brief descriptions of representative innovations now underway at universities throughout the nation.

From its earliest deliberations, the Task Force realized that it was merely a part of a process. In large measure the Task Force itself evolved from CSGS's history of dealing with pragmatic problems at meetings and with the Conference's emphasis on significant but timely position papers. The Conference has established a solid network which utilizes a newsletter, well organized, progressive deans' associations in most states, and excellent leadership by Conference officers. The Task Force also benefited by strong governmental and/or board leadership in some of the states—Florida, North Carolina, Texas—and by progressive measures by individual institutions. Most importantly the work of the Task Force has been highlighted on the program each year. In addition, the Conference has widely disseminated the yearly reports, and the Conference has voted to continue the work of the Task Force for the foreseeable future.

The work of the Task Force has been very fruitful and has produced the following results:

1. The reports and recommendations from the past two years have been widely disseminated and debated throughout the CSGS region, and these discussions and debates are continuing.
2. These discussions have engendered a lively and healthy dialogue between and among deans of education and graduate deans, and in many instances these discussions have led to increased cooperation between the two groups. These discussions have also heightened the awareness of many graduate deans of the problems confronting schools of education. In at least two instances the discussion of these reports has led to the reactivation of the Graduate Deans' Council in a state.
3. This dialogue has helped focus attention on areas for cooperation where changes can realistically be made.
4. This process of discussion and debate has led to assessments and evaluations which should eventuate in positive improvements in teacher education.
5. The report from 1984 is already being used by at least two university task forces studying teacher education.

The Task Force in no way believes that all of these initiatives have resulted from its work. Rather, the members of the Task Force are convinced that their work has abetted this process and in some instances has actually been the motivating force to initiate some major effort. For example, the interesting and significant work being done by Dean Paul Parks from Auburn University and by

the Alabama deans has been expedited by the work of the Task Force. The Task Force has also been helpful in calling to the attention of both graduate deans and deans of education exciting work being done in the region. Examples of this work can be seen in the interesting initiatives being taken at the University of North Carolina at Chapel Hill in establishing the Lyndhurst Fellows. It has also been helpful to many deans in the CSGS region to become more fully acquainted with the initiatives on teacher education that have been taken at the University of South Carolina or the significant state-wide changes underway in Florida and Texas.

We cannot claim monumental success, but I believe that we can safely say that we have initiated a process of dialogue, discussion, and debate that has already led to some modest changes and which will result in even more significant changes in the future. While graduate deans may never be major power brokers, we can in the matter of teacher education play a modest but important role in effecting major changes. In fact, the institutions represented by CGS train the majority of teachers in the nation. This fact alone gives us cause for hope.

Plenary Session II

Friday, December 7, 1984, 9:00 a.m.

Presiding: Alison P. Casarett, *Dean of the Graduate School and Vice Provost, Cornell University*
Speaker: Erich Bloch, *Director, National Science Foundation*

RESPONSIBILITIES IN SCIENCE AND TECHNOLOGY

Erich Bloch

I want to make some general comments this morning about science and technology, about our responsibilities in supporting and conducting research, and about what science and technology can do for this country and all of us.

The essence of my talk today is that the nation faces international economic competition of unprecedented intensity. We can meet this challenge only if we understand the proper role of science and technology and mobilize our resources effectively to make science and technology work for us.

This nation has a tremendous resource in its ability to generate new knowledge and new technology. The universities and industry are where the action is, but they must work together to be really effective—and must take advantage of each other's strength.

I especially want to talk about *responsibilities*. The federal government, state and local governments, the universities, and industry all have complementary roles to play. I will give you my view of these responsibilities. I will talk first about the challenges that we face. There are three major ones.

The first is international market competition. You may ask, "What is so new about international market competition? The United States has been selling and competing on world markets for years." My answer to that is that the changes are matters of degree. But before very long, even gradual changes make a very big difference, and we had better be ready to deal with them.

Two changes seem now to have reached the point where they are very important. The first is the extent to which we must deal with world markets. In automobiles, computers, consumer electronics, semiconductors, steel—in fact in nearly all significant manufacturing industries—*the market for the product is now worldwide*. This was not true thirty years ago—in many industries it was not true much more recently than that. But it is true today. In almost all cases the United States must compete against all other producers, worldwide, to sell its product. That's one observation.

The second issue concerns competition in research itself—the basic science and the technology development required for maintaining industrial competitiveness. Computers are a good case in point.

We have heard a lot about the Japanese 5th generation program, but we are also faced with more immediate competition. While the largest Japanese vector computers are not yet comparable to U.S. machines such as the Cyber 205 and Cray XMP, Japan has made a major national commitment to advance in this area. There is tremendous engineering strength in Japanese industry, and they have leading positions in certain areas of high-speed semiconductor component production. While we should not underestimate the vigor of the United States science and technology community, we *do* have to recognize that the Japanese are in a position to make the development of these computers a close race. There is also significant competition in this area from Europe: the "Esprit" program in the Common Market and "Alvey" in the United Kingdom.

For another example, look at biotechnology. While we are clearly leading today, the intensity of other countries' efforts should give us concern. We might very well be ahead in Nobel prizes—but we must take care not to fall behind in commercial exploitation. Increasingly we will also have to expect significant competition from emerging countries, especially China and the countries of Southeast Asia. The conclusion I draw from this is that we will have to expect major competitive research and development efforts in the key technologies from all industrialized countries.

The third point is that the complexity of technology and the research process is increasing at a more rapid rate than was the case in the past. That is true of the products. Whether cars, computers, or machine tools—all are much more complicated than they used to be, and all are changing rapidly. It is also true of the manufacturing process. We are moving from batch processes to continuous flow processes, and we are applying information technology to integrate the "soft" and "hard" parts of manufacturing. Finally, it is true of the research process itself. Analytical techniques and instrumentation of increasing complexity are required to observe phenomena characterized by smaller scales, shorter times, and weaker signal strengths.

As the whole endeavor gets more complicated, greater attention must be paid to coordinating the various parts of an enterprise. And the necessary skill levels become higher and many times more specialized, thus placing additional strain on the educational system.

These three changes—competition in markets, competition in research and development, and the increasing complexity of technology—combine to present a challenge.

We must meet this challenge, and meet it successfully in all major industrial areas. It will not do for the United States to lead in a few high technology areas and let the basic industries go to foreign manufacturers. Nor can we write off the manufacturing sector and become solely a service economy.

Now, what can we do in order to compete? Not long ago, a study done for the President's Commission on Industrial Competitiveness identified four principal factors in industrial success:

The first is the cost of labor. In this the United States is and will continue to

be at a disadvantage. It is the price we pay, quite gladly, for a high standard of living. The second factor is the cost of capital. Here the United States at best is likely to be at par with other countries. Recently we have been at a disadvantage. The third factor is the rate of exchange: the level of the dollar relative to other major currencies. This also tends to work against us. Lastly, we have the whole area of technological innovation, which includes such things as new materials, CAD/CAM, biotechnology, microelectronics, robots, and other innovations in both products and processes.

Since all the other major factors tend to work against the United States, it is clear that science and technology is the one thing we really have going for us. If we can push technology hard enough, we can overcome disadvantages in labor, capital cost, and currency exchange. If we don't push technology hard enough, we don't compete. It's that simple.

Another way to look at competitiveness is in terms of productivity. A study by the Brookings Institution found five distinct factors which contribute to improved labor productivity in manufacturing. Of the total increases in productivity observed: economies of scale contributed 16%; better resource allocation contributed 12%; capital investment, 16%; and education contributed 12%; but technological innovation contributed 44%—as much as any three of the other four factors. Technological innovation was clearly the most important factor identified.

If advancing science and technology is the answer to industrial competitiveness—and *I* think it is—then the question is, "How do we get this technology? Who is responsible for doing the research? for training the people? for providing the funding?" The answer in the 1950s and 1960s would have been "Let the federal government do it." As long as government was willing, why not? This was certainly comfortable for the other players.

By 1980, however, there was a growing recognition that the federal government could not, and should not, do it all. With the current Administration came a much clearer view that a true partnership in the support of science and engineering was necessary. Each partner has a stake in the outcome, and each should have a fairly well-defined role to play in providing certain kinds of support.

The partners are federal, state, and local governments, industry, and the universities. I will say a bit to describe the responsibilities of each as we see them.

The federal government shares with industry principal responsibility for supporting basic research. Although the federal share of all R&D is less than that of industry (by 48% to 52%), the federal government provides about 67% of all basic research support. There are good reasons for this: By its very nature, basic research is available to all. Its benefits accrue to the nation as a whole, rather than to any segment or geographic region. The federal government can draw on the best talent across the entire nation as performers. It can afford to consider long-term goals, and it can afford consistent funding over an extended period.

Many major basic research facilities are big enough, and expensive enough, so that they must be shared nationally—and sometimes internationally—in or-

der to be justified. Accelerators, ships, and major telescopes are examples of this. So are microelectronic centers and supercomputers.

As we move along the continuum from basic research to development, the proper role of the federal government declines. In general, product development is not an appropriate area for federal involvement. Government is poorly coupled to markets. It is all too likely to support the development of products that will not stand the test of the marketplace.

In recognition of the proper role of the federal government in supporting research, the Administration has shifted resources from development to basic research in an important way. In current dollars, federal support of non-defense basic research has increased 55% since 1981, while support of non-defense development has declined by 34%.

The second important responsibility of the federal government is to provide the proper economic and social environment for science, technology, and industry. Basic economic policies are important because there must be an atmosphere of confidence and stability if commerce is to flourish. Investors like to have some idea of what the future will bring before they commit themselves.

Just as important are specific policies such as tax credits, copyright protection, and anti-trust laws. This session of Congress produced a number of important results. For example: the National Cooperative Research Act clarifies the applicability of anti-trust laws to joint research ventures; the Uniform Science and Technology R&D Act provides copyright protection for semiconductor chips; and the Uniform Patent Procedures Act simplifies patent procedures as they apply to government contractors.

In science education, the federal government has an important role, but a limited and specialized one. We can stimulate science and engineering through the award of fellowships in national competitions; these awards recognize and support the most promising beginning graduate students. We can support research and technical development in education, including such things as new curriculum development and distribution. We support many graduate students through research grants and contracts; this fosters both research and education simultaneously. We can focus attention on quality of education through reports, awards, and special programs. We can provide limited support for such things as teaching equipment and faculty improvement at the undergraduate and precollege levels.

The second major player in science and engineering is state and local government. State and local governments are important because of their traditional responsibility for education and economic development in their own geographic regions.

These branches of government bear principal responsibility for primary and secondary education. Federal programs may provide stimulation, some leadership, and specialized assistance, but the action is at the state and local levels. Recently we have seen several healthy developments: increased high school

graduation requirements, emphasizing math and science; growing acceptance of standardized student achievement testing; better pay for teachers, with greater acceptance of merit pay and differentials for math and science teachers.

Higher education is also supported by the states, for very good reasons: most graduates stay in the area, and help to build state economies. Much applied research on local problems is done in state universities.

State concern for economic development has led to the encouragement of research parks and to the support of research centers on university campuses, often in cooperation with industry, in important areas of technology. The New York State Centers for Advanced Technology programs is an excellent example of this. The program supports university-based centers concerned with biotechnology in health care and agriculture, computers, telecommunications, information systems, and optics. New Jersey has just passed a major bond issue to support a similar program, and several other states are also active. What has been recognized in these cases is that economic development—new companies and new jobs—can be made to happen when the intellectual resources of a good university can be brought together with industrial experience and a few entrepreneurs.

Industry is the third major player. For at least a decade now recognition of the need for industry to take a broad view of its responsibilities has grown. In recent years, industry has been encouraged and challenged in many ways, and the response has been gratifying.

I mentioned earlier the clear recognition of industry's dominant role in development funding. Market discipline is the force that drives industry to do this well. The lack of market discipline is the principal reason why government tends to do this job badly.

Industry also has a major role in supporting basic research. This is not news, but it *is* worth noting new approaches to this task: one is the rise in cooperative research arrangements. Industry's role was necessarily restricted when only the largest companies could afford to support broad basic research programs. Cooperative mechanisms increase the number of players dramatically, reduce the cost and provide critical mass—all without unduly affecting market competition. Organizations like the Microelectronic and Computer Corporation (MCC) and the Semiconductor Research Cooperative (SRC) are establishing important precedents. In an entirely different area, a proposal for a joint venture in research on machine tool systems has recently received Justice Department clearance and is being implemented. This cooperation does not have to come at the expense of competition. Industries can cooperate in basic and even applied research, while still competing in product development, marketing, and production. This may be one area in which we *can* both have our cake and eat it, too.

Cooperation can also be between industry and government. One recent case involves the steel industry and the Argonne and Oak Ridge National Laboratories. One doesn't usually think of the steel industry as high tech, or of the federal

labs as having much relevant expertise. It turns out that some of the labs really do have the expertise. As a result, a cooperative effort of fundamental research in steel-making processing and technologies is now underway.

Another important trend is the strengthening of ties between industry and universities. These ties have existed for decades, but there is now much greater understanding of their importance, and greater effort in finding ways to develop them. Organizations like the Microelectronics and Computer Corporation must be located near major universities to draw the talented people they need. And the Semiconductor Research Corporation and similar cooperatives work *through* universities: their job is to pool industry resources in support of researchers at universities.

Cooperative research centers are another healthy development. Industry is increasingly joining with federal and often with state government to provide support for university research in problems of interest to both industrial and academic researchers.

More companies are recognizing that they benefit directly from supporting university researchers in relevant fields. They benefit both from the research results themselves and from access to talented people.

The fourth major player is, of course, the universities themselves. The universities in this country are a major national resource, and the reason why our research and technology are the envy of the world. But the very strength of the universities makes them resistant to change—probably more so than any other sector. Industries change when the market says they must, and governments must answer to the electorate—at least once in a while. But universities are remarkably autonomous. They have to be talked into changing. I would not have it otherwise, but it is time to do some talking.

The universities' basic responsibility is both research and education. Changes in both may be necessary. The universities' role remains *education*, not training. Students must be prepared for life in a wide range of settings and a life of constant change. This requires an emphasis on basic theory, concepts, and on learning how to think. Nonetheless, university faculty should remember that most of their students will go to industry. Their education should provide some exposure to industrial values and practices.

In research, we have long recognized the academic discipline as the fundamental organizational structure. It defines the problems and paradigms. Without disciplines we could not do basic research in an orderly manner. Many important problems, however, don't fit very well into a disciplinary framework. This simply underscores the need to encourage interdisciplinary approaches. Increasingly we find that we need research centers defined more by problem than by discipline. Interdisciplinary approaches will be facilitated by cooperative arrangements with industry, because industry works that way.

A major issue for which the universities must take primary responsibility is the defense of the peer review system. Peer review is the only way to maintain quality—excellence—in publicly-supported research programs. NSF reviews

over 35,000 proposals a year with the help of outside experts. Decisions on which to support must be—and *are*—made on the basis of scientific criteria. At the level of the individual project grant, this system is widely accepted. At the level of large scale facilities, however, there is always a temptation for institutions to bypass the system and seek decisions through the political process.

Recently, there has been an abrupt increase in direct Congressional appropriations for such facilities, bypassing merit-based review procedures. These have included a vitreous state laboratory for Catholic University, a chemical research laboratory for Columbia University, and a center for excellence in education for Indiana University. In all, we have identified fifteen university facilities in the last three years that have been funded without benefit of normal peer review.

The dangers of this trend are several: scarce research dollars may be allocated to projects of questionable scientific merit, with a consequent decline of overall excellence; even more important, evasion of normal procedures will progressively impair the peer review system and open the basic research enterprise to the influence of political factors. Once a facility is established, we may see a demand for special appropriations for research programs to utilize the new facility. Major new programs could be jeopardized. For example, NSF is establishing programs for engineering research centers and for supercomputers, both of which require major facilities. These could fall prey to special interest funding actions.

It is important that we, who understand the dangers of special interest funding, use every available opportunity to express the seriousness of our concerns. In particular, universities should renew their commitments to self-regulation. University presidents and department chairmen should assume primary responsibility for communicating among themselves and to their faculties the serious implications of bypassing normal procedures—which is to say they should use peer pressure to protect peer review. We need to make sure that no undue advantage accrues in subsequent competitions to those institutions that bypass peer review. Scientific societies and professional organizations should make a special effort to communicate among themselves about this issue and to coordinate their efforts. We must use the opportunities available to us in hearings and informal contacts to reinforce the awareness of the Congress as to how seriously we view the recent events.

But it is the universities which must exercise self-restraint in this matter. Members of Congress, in most cases, feel they have little choice other than to respond to constituents' demands, and some may not fully understand the dangers involved. As university officials, you must not ask political representatives to do things that endanger the peer review system.

I have spent most of my time defining the responsibilities of the major sectors, because those responsibilities determine the broad outlines of science policy. They tell us what we should be doing. They set the context for judging individual policies.

Now I want to get a bit more specific about what NSF is doing to meet *its*

responsibilities. Perhaps most importantly, we have increased basic research support across the board from $600 million in 1975 to $1 billion in 1981, and $1.5 billion in 1985, in recognition of the fact that basic research is what the Foundation and the federal government do best.

Second, we have reinforced the role of the individual researcher with the program known as Presidential Young Investigators. PYIs are the brightest young faculty, chosen solely for their research promise. The objective is to retain these people on university faculties, where they are available to teach graduate students. The emphasis is on engineering and the physical sciences, where faculty shortages are greatest.

The PYI program is important, and we have to make sure that it works. There have been some problems so far. The awardees receive basic support from NSF, with the expectation of matching support from industry. In a number of cases, industry has been slow to provide matching funds, has made only short-term commitments, or has simply shifted funds from other university programs to match the NSF support. We had an important meeting in November, with industry, association, and university people, and some of the PYIs themselves, to investigate these problems and devise solutions. We will be working hard to make sure that we have the necessary support for the program from industry, *and also from university administrations*.

Third, we expect to start several new engineering research centers this year—with more to be added in the future. Each will be focused on a major interdisciplinary area of interest to both industrial and academic researchers. The centers will have close ties to industry and an emphasis on cooperation. The centers will be located on university campuses in order to promote strong links between research and education. Engineers and scientists from industry are expected to participate in order to help focus the activities on real needs of industry, to provide needed skills, and to carry away the results. NSF will provide initial support for five years, with an evaluation after three years. Renewal support will depend on success, which will be judged partly in terms of the level of industrial support and participation.

To remedy a problem of long-standing, we have increased spending on research equipment and instrumentation sharply, because we recognize that universities cannot be denied modern research instruments if they are to do their job. We have begun a large scale effort to make access to advanced computing resources—supercomputers—available to university researchers to a degree never before attempted. Finally, we are beginning a major effort to stimulate and coordinate research in areas related to biotechnology.

In all of this, the emphasis must be on cooperation, and on this point I am optimistic. One of the most positive developments of recent years has been a growing recognition that the scientific and engineering community has to work together. Our debates are principally over the tactics we should use to seek common goals. Increasingly we find that: engineers and scientists can work comfortably together; both disciplinary and interdisciplinary approaches are valid;

the roles of universities and industry are complementary, rather than competitive; and, that individual investigators can flourish along with organized research centers. This is the good news: we can, and we do, work together to solve our problems.

I have emphasized this morning that we live in a truly changing world. And I am certainly not the first to do so. It is by now—and especially with this audience—a platitude to say this.

But it is no platitude to say—in fact, I consider it important to reiterate *as often as possible*—that:

- We cannot take for granted our continued preeminence in science and technology.
- New relationships need to be forged between government and private institutions, and between industry and universities.
- We need to focus constantly on the infrastructure that supports science and technology in this country. We need to pay close attention to the people, equipment, and institutions that make up that infrastructure and *do whatever is necessary* to keep them at the leading edge.

These are my chief concerns as Director of NSF.

Posing with members of a delegation from the People's Republic of China who attended the meeting are three members of the CGS team of graduate deans that visited the PRC in the summer of 1984 at the invitation of the Ministry of Education: **Daniel Zaffarano** (Iowa State University), **Robert Kruh** (Kansas State University) and **Michael J. Pelczar, Jr.**, CGS President Emeritus.

24TH ANNUAL MEETING

INVESTING IN GRADUATE EDUCATION: THE COST OF A QUANTITY OF QUALITY

At the podium is **Wimberly C. Royster,** CGS Board Past Chairman, and University of Kentucky introducing **Alvin Trivelpiece** (center) Director, Office of Energy Research, U. S. Department of Energy, and **Harold Hanson,** Executive Director, House Committee on Science and Technology, U. S. House of Representatives.

RESPONSIBILITIES IN SCIENCE AND TECHNOLOGY

Erich Bloch, Director
National Science Foundation

GRADUATE EDUCATION AS A PART OF THE OVERALL EDUCATIONAL PROCESS

John B. Slaughter, Chancellor
University of Maryland College Park

PLENARY SESSION SPEAKERS

QUALITY IN INTERNATIONAL EDUCATION: THE NEXT STAGE IN LANGUAGE AND AREA STUDIES

The speaker at this session was **Richard D. Lambert,** Director of South Asia Regional Studies, University of Pennsylvania, and those commenting on his remarks were **Richard Thompson,** Deputy Director, Center of International Education, Department of Education; Ambassador **Goodwin Cooke,** Vice President for International Affairs, Syracuse University; and Col. **William A. Scott,** U.S. Army, Director, Education Directorate, Office of the Secretary of Defense, with **Volker Weiss,** Syracuse University, presiding.

THE SOCIAL RESPONSIBILITY OF GRADUATE EDUCATION AND RESEARCH

Theodore M. Hesburgh, President
University of Notre Dame

THE FOREST NOT THE TREES: GRADUATE STUDY IN THE UNIVERSITY

Steven Muller, President
The Johns Hopkins University

Business Meeting

Presiding: Robert E. Gordon, *Chairman, CGS Board of Directors and Vice President for Advanced Studies, University of Notre Dame*
Chairman's Report: Robert E. Gordon
President's Report: Jules B. LaPidus, *President, The Council of Graduate Schools in the U.S.*
Resolutions
Financial Report

CHAIRMAN'S REPORT

Robert E. Gordon

The Program calls for a Chairman's Report. My report, in accord with the length of my tenure in the Chair, will be brief. On September 1, Jules LaPidus became President, thus vacating the Chairmanship. I was dragged from the relative safety of the cocoon as Chairman-elect prematurely. A logistical question arose: Who will report as Chairman and who will talk as President? Since September, I have learned that a Chairman occupies a position not unlike that of a Provost in the University. The President of the University makes speeches; the Faculty has a duty to think about how everything ought to be done, and the Provost, while giving reports, also insures that the President does not start thinking and the faculty don't give speeches. To this extent, Jules will make the speech; I'll make a report, and I hope the members will ponder the problems and opportunities that will be unveiled.

Let me begin by calling for several reports of standing committees whose actions effect the structure of the organization:

- Nominating Committee: standing in for Dean Royster will be Dale Comstock of Central Washington University and the CGS Dean in Residence for 1984–85.

Results of the election held by mail ballot for new Board members and members of the 1985 Nominating Committee are as follows:

Board of Directors
3-year terms
Albert W. Spruill, North Carolina A&T State University
Robert T. Holt, University of Minnesota
Victoria Fromkin, UCLA
one-year term
David S. Sparks

New Board members begin their terms at the conclusion of this annual meeting.

Nominating Committee

Robert B. Lawson, University of Vermont
Bruce R. Ekstrand, University of Colorado
Kenneth L. Hoving, University of Oklahoma

- Membership Committee: chaired by Associate Dean Eugene Piedmonte, University of Massachusetts. The Committee made a report to the Board and the Board took action to approve membership for:

  Radford University, Radford, Virginia
  University of Massachusetts at Boston

Will the representatives of these new members stand and be recognized. There are additional applications pending.

Additional Board action that should be noted at this point includes: the election of Dean Reuben Smith, University of the Pacific, and Dean Arnold Schwartz, Clemson University, to the Executive Committee. They replace Deans Allison Cassaret of Cornell and Dale Comstock of Central Washington on the Board; we also noted in September that with Jules as President, we had lost our prospective Immediate Past Chairman. The Board, in the absence of specific provisions, acted to elect Dean Wimberly Royster for an additional year of service as Less Immediate But Never-the-Less Past Chairman.

1984 has been a notable year for CGS. It has been a time

- for changing of the guard of leadership, with all that that connotes
- for sharing our collective information about graduate education with our counterparts in higher education in Mainland China
- for quick remedial action to redress the question of taxation of graduate assistant tuitions
- for continuing its active role in governmental relations in many ways—notably with testimony before the House Postsecondary Education Subcommittee on Reauthorization, and with a studied response to Jay Keyworth's letter. In depth discussions and/or reports on several of these items are a part of our program for this meeting.

The Board has considered at its meetings ways to implement the Albrecht Report, notably by re-examining the several committees and task forces, their charges, and the participation or lack of it, by the membership in the activities of these bodies.

Board discussions have explored several projects that would offer new, or extended facets of activity for CGS.

- a proposed study of non-degree granting centers that are important to active scholarship and research in one or more disciplines
- the development of data bases in and about graduate education
- the formulation of task forces to search out and examine currently available objective measures of quality in graduate education at all levels. It is important that we position CGS and its members squarely on this issue.

In addition to the items that I have highlighted, there are the day-to-day actions by CGS staff, from President to hourly graduate student aides, that can

best be summed as "representing graduate education to government and private sector." In fact this, when coupled with service to our member institutions, represents the major thrust of CGS. It takes many forms. Few of us have any appreciation of the intensity of this thrust, the demands made on staff and the various forms that the activity takes.

The last two deans in residence have given members of the Board a very real insight into the daily work load of the staff, the response that each is making to execute the total activity, particularly that which makes up the phrase "representing graduate education to government and the private sector."

This insight when coupled with just two of the aspirations expressed in the Albrecht Report, namely more involvement of the individual members, and the development of an information system on graduate education, has led the Board to recognize that our financial base is simply not commensurate with the level of actions that we as member institutions have come to expect much less those that we want expanded.

Accordingly, the Board set into motion last year a Committee on Finance and Budget. As its name implies, the committee has examined both the financial base in place and the annual budget. It has scrutinized each line item for cost effectiveness. It has recommended to the Board, and the Board has approved in principle a budget for 1985. That budget has a potential for a deficit—a deficit budget even with the approved dues increase in place for 1985. The dues increase was the first in three years and did not in itself address inflation much less the ability to implement the Albrecht Report.

We are buying time incrementally while our new president reconceptualizes the budget, and in conjunction with the Finance Committee, explores other ways of securing a financial base commensurate with the level of activity which CGS must deliver to get the job done for graduate education in the 1980s and beyond. I leave you with that thought—you will hear more about it in the next year.

PRESIDENT'S REPORT

Jules B. LaPidus

I have been in Washington for just a few months now and have spent a good part of that time exploring Dupont Circle. As most of you know, One Dupont Circle represents an association of associations, all of whom are involved one way or another with higher education. As I have looked at this group of acronyms, I have tried to organize it in a way that makes sense to me. For example, there are a number of presidential organizations, ACE, AAU, NAICU, NASULGC, AASCU and others, that serve to bring together groups of colleges and/or universities on the basis of historical development, such as AAU, on the basis of whether they are public or private, or in the case of ACE, in an attempt to comprise most of the colleges and universities in the United States. There is another group that deals with specific functions in universities and colleges, and this is best represented by organizations, such as NACUBO, NCURA, AACRAO, NAFSA and NASFAA. Still other organizations represent specific disciplines (AAMC, ASEE); some represent segments of the population (AAUP); and others such as CGS represent parts of the educational system. In many ways, CGS is most similar to ACE in that while it is restricted to graduate education it is intended to be a national organization that deals comprehensively with the institutions significantly involved in graduate education.

The education associations are like the parts of some great orchestra—playing without benefit of conductor, united in a belief in the value of what they do, recognizing that harmony is usually good, cacophony usually bad, dissonance often interesting, and committed to finding some generally acceptable definition of dynamics and timing. CGS plays an important part in that orchestra and will continue to do so.

Originally, I had intended to discuss the issues facing graduate education today. But I decided not to do that. That is what this meeting is for and I hope it is succeeding. No—I want to talk about the Council of Graduate Schools in the United States.

Wednesday night we honored Mike Pelczar. Let me make a brief comment about some of the consequences of his leadership. CGS is much more visible in Washington, in the United States and internationally. My reception by new colleagues in the associations and in government has been enthusiastic. They know about CGS and are eager to work with us. CGS has been positioned to play an increasingly important role. Expectations about CGS have been raised—your expectations about what we could (and should) do and the expectations of the higher ed community about our capability as the organization representing graduate education in the United States. We need to deal with that legacy.

What do you expect from this organization? Last year, many of you participated in a planning study carried out by Paul Albrecht at the request of the CGS board. Let me recall for you the major conclusions drawn from that study:

- You believed that we should establish a network to assist the Washington staff in the area of federal relations;
- You believed that we should develop a plan for effectively articulating the graduate cause;
- You believed that we should develop a way to increase the active involvement of the membership;
- You believed that we should develop capability in the data and information area and increase our professional staff in order to do this;
- You believed that CGS needed to embark on a series of studies dealing with major issues in graduate education.

That is what you believed was important.

What do others—the Washington community, associations, agencies, the Congress, the press, the public, etc.—what do they expect from CGS?

- I believe they expect us to be the major source of information about graduate education—all of graduate education.
- I believe they expect us to understand graduate education well enough to convert that information into knowledge.
- I believe they expect us to use that knowledge in effectively representing graduate education.

There is no inconsistency in these expectations. They gather around two critical issues: information and the convening authority of this council.

Convening authority is a traditional authority of associations like this one and, significantly, of the graduate school. It is a way to define and analyze issues, to generate and refine ideas, and to develop and articulate positions, by bringing together those people best equipped to do this in any given situation. It is a way to bring to bear on any issue the force of this council, through committees, task forces or special commissions, and to represent, through the convening of this body, the views of the graduate education community. It is a way to involve the members to create networks, to affect legislation, and to help shape the future of education, research and scholarship.

To effectively involve the members of this council, it is imperative that we have better information. For example, we need to know who among you speaks French; administers laboratory animal facilities; serves on boards or councils; have been Fulbright scholars; administers computer centers; etc. In short, we need a graduate dean data base and we will be developing one with your help. But we need much more than that. We need to view information in a new way.

CGS must be the authoritative source of information about graduate education. In order that this can happen, we need to bring together the information developed through many data-gathering activities and underway in a variety of places. There are rich stores of information about graduate education at NSF, NIH, NCES, NRC, ETS, Peterson's, UMI and other organizations. Our colleagues in AAU, NASULGC, AASCU, NAICU, etc. have information about programs in their institutions. There are overlaps, gaps, inconsistencies; there are opportunities, problems, pitfalls; most of all, there is a responsibility to

better inform ourselves and others about what we are, what we do, why we do it, and what difference it makes. To do these things will take time and people and money—more money than can be generated with our historical financial base. The size of this organization will not change dramatically. Given that, there is a limit to what we can do and we are about there—unless we reconceptualize the financial base of the Council, and in addition to formulating a realistic dues structure, seek funds other than those provided by member dues in order to support specific projects. During the coming year, we will be working with the finance committee and the Board to explore these issues and to plan for the future.

Let me end by quoting some lines, written by Edna St. Vincent Millay in 1939:

> Upon this gifted age, in its darkest hour,
> Rains from the sky a meteoric shower
> Of facts . . . they lie unquestioned, uncombined.
> Wisdom enough to leach us of our ill
> Is daily spun; but there exists no loom
> To weave it into fabric . . .

We must construct that loom so that we can weave that fabric.

GUIDE TO ACRONYMS

AACRAO	American Association of Collegiate Registrars and Admissions Officers
AAMC	Association of American Medical Colleges
AASCU	American Association of State Colleges and Universities
AAU	Association of American Universities
ACE	American Council on Education
ASEE	American Society for Engineering Education
AAUP	American Association of University Professors
CGS	Council of Graduate Schools in the United States
ETS	Educational Testing Service
NACUBO	National Association of College and University Business Officers
NAFSA	National Association for Foreign Student Affairs
NAICU	National Association of Independent Colleges and Universities
NSAFAA	National Association of Student Financial Aid Administrators
NASULGC	National Association of State Universities and Land-Grant Colleges
NCES	National Center for Education Statistics
NCURA	National Council of University Research Administrators
NIH	National Institutes of Health
NRC	National Research Council
NSF	National Science Foundation

Resolutions

RESOLUTION NO.1

Resolution in Support of Expanded Graduate Student Support During Reauthorization of the Higher Education Act

WHEREAS previous deliberations over the reauthorization of the Higher Education Act of 1965 have paid relatively little attention to the role of graduate education and graduate student support,

WHEREAS graduate programs are currently aided primarily by the loan programs included within the Higher Education Act, and,

WHEREAS the last reauthorization granted a slight expansion of Title IX programs and the creation of a new National Graduate Fellows Program that received funding only in the fiscal year 1985,

WHEREAS the generous support of minorities in Title IX programs promised in previous reauthorizations has never materialized in actual appropriations and as a consequence minority enrollment in graduate and professional programs is once again heading downward, and,

WHEREAS financial aid programs have proved themselves over the last twenty years to have broken the barrier of financial access to higher education, freeing individuals, colleges, and universities involved to pursue educational goals that serve the larger interests of our nation, and,

WHEREAS the need for people and programs to prepare for the faculty talent necessary for the 1990s and beyond argue that programs should be put in place to meet those needs during the upcoming reauthorization, and,

WHEREAS the economic and societal benefits of national policies that provide maximum opportunities for graduate education have been ably demonstrated by the current generation of business, industry, government, and education leaders whose graduate education was financed by such federal programs as the G.I. Bill, the National Defense Education Act, and subsequent federal assistance programs,

NOW THEREFORE BE IT RESOLVED that the Council of Graduate Schools sets forth the following goals and objectives for reauthorization.

1. Maintaining authorization and securing annual appropriations for programs to aid minority student access to graduate and professional education. This means keeping parts A and B of Title IX and funding them on an annual basis to provide support for identification, recruitment, and assistance programs designed to increase minority access to graduate education allowances at least equivalent to those of other federal fellowship programs.
2. Maintain an authorization, securing actual appropriations and operating authority for the Title IX Part C National Graduate Fellows Program; to create and operate a restored program of fellowship support for advanced

degrees in the arts, humanities and social sciences; to retain a generation of new scholars in these currently neglected areas for the future needs of the nation.

3. Increase funding for those Title IV campus-based programs: the National Direct Student Loan Program and the College Work Study Program which support some limited number of graduate students in graduate programs. Authorizations should be increased and funding levels should also increase to reflect unmet need among graduate students who are eligible for these programs.
4. New mechanisms to increase access and opportunity for graduate education should be developed. Reports of the National Commission on Student Financial Assistance suggest that levels of borrowing to support graduate programs are increasing. The burden of loans currently required to complete study for advanced degrees is operating to reduce the attractiveness of graduate study. CGS is prepared to support the expansion of existing financial aid programs to the graduate level. CGS is also prepared to support new initiatives to provide different kinds of support for graduate study at the master's and doctoral level. New or expanded programs would help support able students who are deterred by the cost of graduate study. New programs should increase support from the federal government in the form of grants for educational expenses, while maintaining campus-based decision making concerning admission of students and distribution of awards.
5. Seek to advance the concept of financial independence upon entrance into programs of graduate study. Current law provides that dependent undergraduates must be independent of parental support for one year before achieving financial independence. This acts as a hardship to those students proceeding directly from undergraduate study to a graduate program, and establishes a presumption of continued dependence for students who are in every other way independent adults. Upon entrance to graduate study, students should be allowed to make independent determinations of financial need that do not reflect undergraduate arrangements.
6. Other titles of the Higher Education Act should also be examined carefully during reauthorization for their effect on graduate education. Library programs deserve continued support, as research and technology move into electronic data systems. International student and scholarly exchange programs, and language and area studies should be continued in a more focused manner to insure comprehensive knowledge of foreign cultures. Operations and applications procedures should be streamlined whenever possible.
7. The problems of adult education, part time students, urban universities and the difficulties in administration of all existing and potential programs should also enjoy the attention of the Congress, such that authorization of the Higher Education Act can set a positive direction for the federal relationship to graduate education.

The Council of Graduate Schools stands ready to assist this process in many ways. Many individual members will seek to inform this process with expertise and advice from the field. The Washington office will assist in the development of information to inform the Congress of priorities as well as keep our members informed of legislative developments. Together CGS wants a reauthorization that will advance the opportunity and talent of the nation to prepare the new knowledge and skills necessary for the next century.

RESOLUTION NO. 2

Minority Access in Graduate Education

WHEREAS the problem of minority access to graduate education continues and grows as population trends, and enrollment trends redefine the demographics of the U.S., and,

WHEREAS CGS has long been on record in support of the concept that the talent necessary for the future development of our society is broadly distributed in population without regard to race and gender, and,

WHEREAS the percentage of individuals with advanced degrees among women and minority groups still shows these groups to be underrepresented in a variety of disciplines, and

WHEREAS the role of the federal government in providing leadership and support to insure access and opportunity has long been established and continues to be confirmed through the actions of the United States Congress, and,

WHEREAS in spite of all these efforts there continues to be a serious problem with regard to minority access to graduate education,

NOW THEREFORE BE IT RESOLVED that the Council of Graduate Schools in the U.S. reconfirms its commitment to advance the development of human capital through increased efforts by its member institutions to provide access and opportunity to minority candidates in all disciplines through programs of recruiting, retaining, graduating, and placing minority and women graduate students in fields for which they have been schooled by our members. CGS also believes there is room for more involvement by the federal government, foundations and private sector organizations in advancing this cause. New or revised programs that would provide additional mechanisms for the support of minority candidates for advanced degrees are vitally necessary to ensure the continuation of expanded access to advanced study. CGS pledges its continued involvement and support for new programs and new solutions to the problem of access.

RESOLUTION NO. 3

Graduate Education and Tax Policy

WHEREAS this year has seen the passage of the Tax Reform Act of 1984, and a variety of other tax related legislation that has involved discussions and potential financial implications for tax policy and graduate education, and

WHEREAS in previous years the Council of Graduate Schools in the U.S. has not considered tax policy legislation as directly relevant to the enterprise of graduate education in the U.S., and,

WHEREAS it is now apparent that this is so,

NOW THEREFORE BE IT RESOLVED that the Council of Graduate Schools in the U.S. goes on record in support of the higher education community efforts for continuation of tax policies and tax legislation that support the educational activities of colleges and universities, their faculty members, employee benefits in general, and specifically the federal income tax treatment of tuition remission of graduate teaching and research assistants. The threatened loss and last minute restoration of some of these policies by the U.S. Congress in 1984 should serve as sufficient impetus for institutions to take note of existing policies and legislation and the benefits derived from them. The U.S. Congress and executive agencies of the federal government need to know the importance of tax policies that give favorable treatment to advanced levels of education as a mechanism for individual and societal economic development that should be continued. Other mechanisms such as the existing research and development tax credit and possible tax incentives for financing or sponsoring graduate education should also be considered as a part of tax reform efforts currently underway.

RESOLUTION NO. 4

Resolution in Support of College and University Research Capacity

WHEREAS our nation has made a large and long-term investment in academic and research facilities on our nation's campuses, and,

WHEREAS studies have shown that this nation's capacity to conduct state-of-the-art research at colleges and universities has been diminishing over the years due to a lack of consistent federal support, and,

WHEREAS the investments needed to maintain these facilities are in human capital as well as building and equipment capital investments, and,

WHEREAS the federal government has over a period of nearly 200 years provided leadership and investments in university research facilities as part of the federal responsibility to provide national defense and provide for the general welfare of the nation, and,

WHEREAS increased funding is again necessary to support our nation's research capacity through greater investments in research facilities and instrumentation, research fellowships, research initiatives and competitions, through fed-

eral agency initiatives that will allow these investments to take place in mission agencies of the federal government, and,

WHEREAS increases in authorizing and appropriations legislation will be sought to support these initiatives in multiple agencies of the federal government,

NOW THEREFORE BE IT RESOLVED that the Council of Graduate Schools indicates its support for bi-partisan initiatives and leadership that will support legislation and executive policy decisions to:

1. Improve our eroding national capacity to respond to problems, opportunities and crises.
2. Insure talented people with the capacity for graduate work and academic careers continue to choose research and scholarly careers over other alternatives.
3. Fund and provide facilities and equipment for research to replace our deteriorating national capacity to provide university-based research and research training.
4. Reduce ever-increasing paperwork and red tape that drive up costs, frustrate researchers, and decrease the productivity and effectiveness of research efforts.
5. Recognize that whatever the benefits and risks of university-industry relationships, private industry will not replace, to any real extent, the role of the federal government in sustaining the capability for research and research training, thus necessitating continuing federal involvement in programs to support graduate education, research, and facilities necessary for the unpredictable future needs and national security of our country.

THE COUNCIL OF GRADUATE SCHOOLS IN THE UNITED STATES

Financial Report for Years Ended December 31, 1984 and 1983

We have engaged Alexander Grant & Company, nationally recognized certified public accountants, 2000 L Street, N.W., Washington, D.C. 20036, to perform the annual audit of The Council of Graduate Schools in the United States. Summarized financial data is provided below. This recapitulation is not a complete presentation of the report of Alexander Grant & Company and does not contain all the data and informative disclosures required by generally accepted accounting principles.

BALANCE SHEETS

ASSETS

	December 31, 1984	1983
Current Assets	$465,610	$513,922
Fixed assets, less accumulated depreciation	5,463	4,976
Endowment fund investments	18,012	18,012
	$489,085	$536,910

LIABILITIES AND FUND BALANCES

Current liabilities	$112,105	$138,694
Fund balances:		
Unrestricted:		
General operating fund	358,968	380,204
Restricted:		
Endowment fund	18,012	18,012
	376,980	398,216
	$489,085	$536,910

STATEMENTS OF REVENUE, EXPENSES AND CHANGES IN FUND BALANCES

	Year ended December 31, 1984	1983
Revenue	$472,875	$442,793
Expenses		
Personnel	229,174	217,251
Meetings and travel	166,752	140,218
Office expenses	96,066	77,067
Gustave O. Arlt Award expenses	2,119	3,186
	494,111	437,722
Excess (deficiency) of revenues over expenses	(21,236)	5,071
Fund balances at beginning of year	398,216	393,145
Fund balances at end of year	$376,980	$398,216

BREAK TIME

Luncheon

PRESENTATION OF AWARDS

Presiding: Eugene Kennedy, *Dean of the School of Arts and Sciences, The Catholic University of America*

GUSTAVE O. ARLT AWARD IN THE HUMANITIES

Presented by: James Ballowe, *Associate Provost and Dean of Graduate School, Bradley University*

CGS/UNIVERSITY MICROFILMS INTERNATIONAL DISTINGUISHED DISSERTATION AWARD

Presented by: Richard B. Schwartz, *Dean of Graduate School, Georgetown University*

THE GUSTAVE O. ARLT AWARD IN THE HUMANITIES

The Gustave O. Arlt Award in the Humanities is named in honor of Dr. Gustave O. Arlt, a distinguished humanist, scholar and administrator, and founding president of the Council of Graduate Schools. The award honors a young American scholar who has made a significant contribution to a designated field in humanities studies, who has received the doctorate and published a significant book within five years of the date of the award. This year the specified field was Philosophy. The twelfth Arlt Award was presented to Nathan U. Salmon, Associate Professor of Philosophy at the University of California, Santa Barbara. The work for which Dr. Salmon received the Arlt Award is *Reference and Essence*, Princeton University Press, 1982. A certificate and honorarium of $1,000 were presented to Dr. Salmon by James A. Ballowe, the Chairman of the CGS Gustave O. Arlt Award in the Humanities Committee and Associate Provost and Graduate Dean at Bradley University.

Typical of statements by those supporting Dr. Salmon's nomination is: "In my view, Salmon's book shows the mastery, clarity and judgment of a senior scholar combined with the enthusiasm and creativity of youth. Both substantively and methodologically *Reference and Essence* moves the discussion of reference and essence to a new and higher plane." Dr. Salmon received his Ph.D. from the University of California Los Angeles in 1979.

CGS/UNIVERSITY MICROFILMS INTERNATIONAL DISTINGUISHED DISSERTATION AWARD

The CGS/UMI Distinguished Dissertation Award, established by the Council of Graduate Schools, with funding by University Microfilms International, recognizes excellence in doctoral research. Broad disciplinary areas are designated each year, with Humanities and Fine Arts as the field for 1984. The fourth annual award was presented to David R. Lasocki for his dissertation entitled *Professional Recorder Players in England, 1540–1740* which was completed at the University of Iowa in July, 1983 and was chosen by the University of Iowa's Graduate Council as the winner of its D. C. Spriestersbach Dissertation Award. A certificate and $1,000 honorarium were presented to Dr. Lasocki by Richard B. Schwartz, Chairman of the CGS/UMI Award Committee, and Dean of the Graduate School, Georgetown University.

A nominator of Lasocki's dissertation said, "he has provided us with an analytically rich and complex picture of the changing status, organization and social composition of recorder players in England at all levels of musicianship over a period of two centuries; another noted "he has long been respected by the most eminent players and scholars in the United States and abroad as a person able to find the most elusive material and to unearth myriad pertinent facts that no one else had even guessed were available."

AWARD WINNERS PRESENT SUMMARIES OF THEIR WORK

GUSTAVE O. ARLT AWARD IN THE HUMANITIES
Nathan U. Salmon

CGS/UMI DISTINGUISHED DISSERTATION AWARD
David R. Lasocki

Plenary Session III

Friday, December 7, 1984, 2:00 p.m.

QUALITY IN INTERNATIONAL EDUCATION: THE NEXT STAGE IN LANGUAGE AND AREA STUDIES

Presiding: Volker Weiss, *Vice President for Research and Graduate Affairs, Syracuse University*
Commenter: Ambassador Goodwin Cooke, *Vice President International Affairs, Syracuse University*

Goodwin Cooke

Both Dr. Lambert and his colleagues, the authors, and the sponsors of *Beyond Growth* deserve our thanks and admiration for a profound and useful survey, one which can be used as a bench mark for further developments in language and area studies.

I was most impressed with the description of the growth in language and area training since World War II, inspired in some measure by the armed services and other government institutions, and advanced by the great private foundations—Rockefeller, Ford and the like. The capability for advanced study and instruction at American universities is well established and, as the title of the survey suggests, we are now looking for directions "Beyond Growth."

But there seems to be a fundamental contradiction someplace. At the same time that the capability for research and pedagogy in these fields has grown remarkably, there has been a rising crescendo of complaint at how poorly Americans are prepared in language and area studies. It is routine to hear that American diplomats do not speak the language of their country of assignment, or that American business people are not only without linguistic skills but utterly unaware of and insensitive to political or cultural developments in the countries where they do business. We hear this lament not only in the Far East where languages are difficult and customs alien, but in Latin America, Western Europe and even Canada. I think some of these complaints are well founded. But this problem arises at the same time that institutions for Far Eastern, Latin American, and even Canadian Studies have flourished and prospered.

I say that some of these complaints are well founded, and I regret that this leaves me in disagreement with some of the language in *Beyond Growth*.

On page 10 of the preamble we read: "Much of the enormously enriched information base mobilized for their clientele by 'information intermediaries,' such as free-standing translators, language training institutes, research contrac-

tors, and consultants—for example, consulting firms in economics, accounting, management, marketing, and business information services—was created or assembled by language and area specialists. Moreover, a great many non-area specialists now employed in the private and public sectors have had one or more courses providing them with some exposure to foreign area studies and familiarizing them with specialized information sources in these fields. Business firms, including law firms, banks, the 'information intermediaries,' and government agencies, tap the specialized knowledge of area experts with some frequency through ad hoc consultation, or, less frequently retainerships. The libraries of the major institutions are also relied upon as a source of area information on an as-needed basis. The language and area studies efforts have built an ample and complex infrastructure of skills and information, one that yields, as economists would put it, rich externalities to consumers of this information and expertise in both the public and private sectors."

With all respect I think that it may be a bit more sanguine than the actual situation suggests.

But in saying that I am not necessarily faulting the area and language institutions. One major factor in the problem is that the institutions that do our business abroad, government agencies and private firms, are *not* hiring people for their area expertise and are not making adequate use of the reservoir of skills that has been created.

The U.S. Foreign Service, to cite an institution which obviously should be a consumer of this expertise, does not recruit language and area specialists. A few may slip through the screen, and there is no explicit objection to this happening, but it is not part of the recruiting process.

The Foreign Service Institute, which I think is worthy of mention by the author, has made several imaginative innovations in language and area studies under the astute direction of Stephen Low, but these are used to train people already recruited. The examination process gives priority to the broad gauged generalist with special ability in a functional skill—economics, political analysis, administration or public relations. The written exam is a sort of super SAT, and because the applicant pool is so large and so good the successful applicant is usually a very able person indeed, who will do well in language and area study at FSI, but will normally not have done graduate work in area studies. The major complaint at State is not that candidates are ill-prepared in Chinese, but that they cannot write adequate English.

I should note that the diplomats expert in Soviet affairs mentioned in *Beyond Growth*—George Kennan, Chip Bohlen and Llewellyn Thompson—all learned their Russian after they joined the Foreign Service. Kennan, for whom I had the privilege of working in Yugoslavia, was posted to Geneva and Hamburg before being sent for Russian studies in Germany, and Bohlen studied in Paris, also as a Foreign Service Officer.

At this moment the Foreign Service is examining ways to give credit for hard languages in the examination process, but basically the recruiting thrust is for

generalists with functional skills who can later be trained to fit the needs of the Service. The same applies to other agencies—USIA and Commerce. The CIA will hire the occasional analyst for specific areas but also leans toward functional skills.

In the business world the situation is perhaps worse. Major international firms hire young Americans for skills in engineering, marketing or management. If they do well they are later sent to be regional representatives in Buenos Aires, Brussels or Tokyo and quite often perform less than adequately. It *is* difficult to do business in Japan, but we sometimes get the impression that the Japanese language is a non-tariff barrier to American goods and services and that we should make representations in the GATT to have it modified or abolished altogether. Even in Canada there are too few American business people who understand the political and social imperatives behind Foreign Investment Review legislation and simply call it Trudeau-inspired anti-Americanism.

An exception to this trend may be the banking industry. The major international banks seek out bright people with area and language skills and teach them banking—although it has not apparently done us much good in addressing problems of Latin American debt. But even the banks would likely prefer to hire the young area specialist who is interested in finance and knows how at least to read a balance sheet. And I don't think we can ask General Motors, for example, to hire people who are not going to be able to help build or sell cars.

And that might point a direction which graduate education could usefully examine. I believe some graduate schools are already experimenting with varieties of interdisciplinary degrees. A person with a degree in (I am being only slightly facetious) "Marketing and Japanese," "Economics and the European Communities," "Political Science and Africa" or even "Computer Engineering and Arabic" would be an extremely attractive commodity to institutions which must do business abroad. Since I am not an academic myself I worry that I may be speaking heresy and striking at the foundations of the Republic, but I think a more flexible approach to the graduate degree should at least be considered.

The other point I would like to make is that institutions doing business abroad, particularly the government, do not make adequate use of the nation's academic resources. This is probably in largest measure the government's fault. With only modest exaggeration it could be said that the only two Sovietologists to whom the Reagan administration listens are Jack Matlock in the NSC and Richard Pipes at Harvard, which is not the widest spectrum available.

We are a long way from the English example where the Foreign Minister goes back to Oxford and talks about his problems over the port with the dons. And the lamentable demise of bipartisan foreign policy has led administrators to seek out academics who they are fairly confident will agree with the policy of the day.

But the academic community bears some of the responsibility. Some area specialists who could be of enormous assistance to government eschew the nastiness of politics and the pettiness of nitty-gritty decision making. Others come to Washington and instantly become more bureaucratic than lifelong residents.

The people like Reischauer who can maintain academic perspective in government, or like Kennan who can maintain political sensitivity in academic research are too few. But there are many more than we have so far taken advantage of. It is in the interest of both government and academic institutions to seek a fuller and more forthcoming dialogue.

Concurrent Sessions

Friday, December 7, 1984, 3:45 p.m.

10. QUALITY CHARACTERISTICS OF MASTER'S DEGREE PROGRAMS

Presiding: Vivian A. Vidoli, *Dean of Division of Graduate Studies and Research, California State University-Fresno*
Speakers: *Jerry King, *Dean of the Graduate School, Lehigh University*
‡Larry J. Williams, *Dean of Graduate School, Eastern Illinois University*

Jerry King

One need only refer to the proceedings of these conferences to find careful and thoughtful discussion of the topic of quality characteristics of graduate programs in general and of master's programs in particular. See for example the written record of the Council of Graduate Schools meetings at Denver 1976, New Orleans 1977, and San Diego 1978. The discussions at these meetings preceded and in some sense led to the widely used instrument distributed now by the Graduate Record Examinations Board and the Educational Testing Service called the Master's Level Graduate Program Self-Assessment Service Kit.

Although the CGS attention to quality characteristics and the development of the ETS assessment kit have helped bring the issue into focus, interest in the subject continues which accounts for its presence on the program of this meeting and for my being asked to talk about it. I will proceed by stating a fundamental axiom, listing four quality characteristics of master's programs, outlining the review and evaluation procedure, and giving a rule of thumb for every day operation. And I should point out that my own institution gives the doctorate in almost every area in which the master's is offered.

My remarks should be interpreted in the context of a doctoral institution. The situation in master's only institutions may be different. And the difference may be manifested most clearly in the fundamental axiom.

I. THE FUNDAMENTAL AXIOM

Graduate study is the extension of a faculty's research, not of its undergraduate teaching.

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* Abstract given here.
‡ Abstract given here. Copy of complete presentation available on request from CGS office.

The notion described in the axiom appears, one way or another, throughout Jaroslav Pelikan's recent Carnegie Foundation monograph, *Scholarship and Its Survival: Questions on the Idea of Graduate Education*. Mr. Pelikan, Sterling Professor of History at Yale and former graduate dean, says: "the essential goal of graduate education is competence in research and scholarship," and "everything that the graduate school of a university does must be subordinate to the demands of scholarship."

II. QUALITY CHARACTERISTICS

In a doctoral institution the quality characteristics for master's programs are:

- faculty active in research
- rigorous curriculum and degree requirements
- students capable of meeting the requirements
- an administration capable of providing a symbiotic interaction of the first three criteria.

Notice that in doctoral institutions the fundamental axiom implies that the research characteristic cannot be replaced by any combination of the other three. Notice also that the quality characteristics might apply as well to the Ph.D. as to the master's degree. Moreover, this similarity of criteria for evaluation of master's and doctoral programs was anticipated by Bernard Downey of Villanova at the 1977 CGS meeting in New Orleans. Dean Downey said: "institutions which have been careful to attain and maintain quality doctoral programs will have the resources in place to ensure quality master's degrees. The prevailing institutional philosophy should quite easily spill over from the doctoral to the master's programs. . . ."

III. THE REVIEW PROCESS

The process used to review master's programs should be routine and systematic and should examine the degree programs one-by-one in the light of the quality characteristics. The review process should have three parts:

- self-evaluation by faculty
- evaluation by students and alumni
- evaluation by outside experts.

Two of these parts of the review process are covered by the ETS self-assessment kit. But the third, the evaluation by outside experts is critical and must be included. And it is essential that the review be conducted regularly and routinely. A program should not be reviewed only when the graduate dean believes it is in trouble.

IV. A RULE OF THUMB

While "quality" may be hard to identify, its opposite is generally easily recognizable. And the opposite of "quality" is "mediocrity."

What we must do as faculty and as administrators is *eschew mediocrity*. Those of us who do will not only endure, we will prevail.

Larry J. Williams

At the 17th annual meeting of the Council of Graduate Schools, Eugene Piedmonte was addressing the topic, "Probing the Master's Degree." He said, "something must be wrong with the master's degree . . . the topic keeps coming up, with predictable regularity . . . the tendency has been to criticize master's degrees essentially for their shortcomings to quality. And, since quality is revered by academics as a goal ever to be pursued but never to be acquired—such discussions tend more to frustrate than to illuminate."

So here we are again, aboard the starship "Quality Pursuit," Captain's log: stardate 1984.9. Mission: to avoid a new wave of "Frustration." Destination: "Illumination." Before departing, perhaps it would be useful to review how we arrived at our current state.

Just one hundred years ago, there were less than 1,000 master's degrees awarded annually in the United States. From 1940 to 1960 the numbers increased from 26,000 to nearly 75,000. But in the decade of the '60s the number of degrees which were awarded nearly tripled, exceeding 208,000. For the last ten years the level has remained relatively stable with the awarding of nearly 300,000 master's degrees annually by over 1,100 accredited universities in the United States. During the same ten-year-period the annual production of doctorates has remained at about one-tenth of this level. And, of these 1,100 universities, over 650 do not award the doctorate. As has been noted by Dr. Michael Pelczar, whenever there is a discussion of high quality graduate schools, master's degree granting institutions are rarely mentioned. The significance and magnitude of master's degree programs are overlooked. Unfortunately, such conditions lead master's degree granting institutions to the natural progression of implementing doctoral programs. Too often this pattern is followed in order to gain appropriate recognition from the academic, government, and business communities—even though the institutional environment may lead only to mediocrity in doctoral program quality. We must recognize that there is a significant difference in resource needs required to deliver quality master's vs. quality doctoral programs—just as there is a significant difference in needs between bachelor's and master's degree programs. Master's degree granting institutions should not assume that they can move into the Ph.D. arena simply because they have high quality programs at the master's level. The quality of a master's degree should not be judged entirely by the same standards used for evaluating Ph.D. programs; but neither should the measures be less rigorous. Thus, it does seem appropriate that not only should we discuss the quality aspects of the master's degree periodically but, in fact, should address these issues on a continuing basis.

I contend that if we could find the answers to the following two questions, then we would have less of a sense of frustration as graduate deans. "What are we trying to accomplish with our master's degree programs?" And, "how well are we doing it?" In fact, one might argue that if we had the answers then we wouldn't need to even be discussing this topic. However, I don't completely agree, simply because I think that many of us might not like the answer to the second question. And so, to lower the "frustration level" to near zero we would need the answer to still a third question. "How can we as graduate deans refocus programs so that the results are those that we want?" Or, if we are currently satisfied, "How do we maintain this level of quality in a rapidly changing information society?"

I suspect that a large part of our frustration lies in our inability to answer the first question; for before we can meaningfully talk about quality characteristics and their measures, we must decide what it is that we are trying to do.

In a "Joint Statement on Accreditation of Graduate Work" prepared in the early 1970s by CGS, the National Commission on Accrediting, and the Federation of Regional Accrediting Commissions of Higher Education, it was specified that "two main types of graduate degree programs, with different primary objectives, may be recognized: research-oriented degree programs . . . and, practice-oriented degree programs." Given the rapid growth of the number of master's degrees in the sixties there was no clear distinction between the two even then, and ten years later the line has become considerably more blurred, if not obliterated. When modifying or designing master's degree programs we need to adopt requirements that do not vary greatly from the norm for the discipline and degree designation. Otherwise we risk the possibility that the master's degree as a recognized level of achievement will become extinct.

Conceding that considerable variation in degree requirements will continue, the single most important characteristic for determining quality is "output." Not every master's degree program has to accomplish the same objectives—even those that are offered in the same discipline. I caution that great care must be taken not to use output as the single measure of quality. We should not have license to abandon normally accepted quality standards in the delivery of master's degree programs in order to obtain desired outcomes which may have only short-term benefits. But neither should we use highly quantified, time-honored quality measures to "rank" programs—especially if we ignore both the purposes and success of the program based on outcomes.

If I were to ask each of you to list six principal components one should analyze in order to determine the quality of a master's degree program, there is little doubt in my mind that there would be substantial overlap. Most likely you would include students, faculty, curriculum, financial resources, support services, and administrative structure. However, I am not aware of any well-defined quantitative methods which have been shown to measure accurately how these characteristics affect the overall quality of a degree program. I think we would all agree

that we can find some very good indicators. If this were not true, then we have been wasting a great deal of time at meetings talking about evaluation of graduate programs. But it is true that much of our frustration is the inability to find more precise measures. While I doubt that we will ever have the "perfect instrument," it is essential that we try to improve our methods, for in that way we will continue to reassess the purposes and outcomes of our programs.

While I have already indicated that I do not believe that we should abandon a task whose completion would result in positive outcomes simply because it is difficult or because we feel it is not possible to ever achieve final closure, it is true that we must consider the "cost-benefit" ratio. As graduate dean at an institution which does not offer doctoral degrees, I simply must accept the fact that there are factors affecting graduate education in my institution over which I have little or no control. While that doesn't mean they don't concern me or that I won't try to affect them, it does mean that my resources and energy can be better spent by concentrating on those factors which I can control—or have a good probability of changing. If we do not do a careful analysis of those issues which we can affect and then concentrate on them, we will not only fail to make improvements in the quality of our programs but will soon find ourselves abandoning ship.

So what can we do? First, we must constantly remind ourselves that although we may be limited by circumstances, we can move towards excellence. We must retain strong leadership, for no matter how good the organizational structure, without strong leadership you have only on paper the existence of an administrative chart which satisfies the requirements of our many accrediting agencies. I stress that structure is also necessary for without that, sooner or later quality will be compromised. It is important to remember that the closer you are administratively to a person who perceives that he or she will be negatively affected by a decision (regardless of its impact on quality), the more difficult it is to make that decision. Consequently, a carefully conceived process of decision making will assist us better in influencing those factors which we have targeted. Furthermore, it is essential that within the structure there exist a prescribed set of regulations and policies by which you can enforce standards in those characteristics which do affect quality. The mere existence of such procedures will not guarantee excellence but the lack of the same will certainly lead to mediocrity in program quality.

I would like to enumerate some suggestions that we might consider in an effort to gain higher visibility for the master's degree thus, in the long run, impacting quality.

1. The CGS statement on the master's degree should be revised with minimum recommendations listed for distinguishing master's degrees by title.
2. Better articulation between governing boards or other controlling bodies and graduate deans would help promote support for master's degree programs.

3. A better network within CGS of predominantly master's degree-granting institutions should be developed to enhance the effort of data collection and thereby to provide a better forum for discussion of the master's degree.
4. Support should be solicited from predominantly doctoral institutions to address quality issues involving master's degree programs.
5. We should work closely with both regional and specialized accreditation agencies to establish appropriate means of evaluating master's degree programs.

We must promote the concept that the master's degree is a legitimate level of educational attainment and does have an appropriate place in graduate education. If we are sincere in our belief that high quality graduate education is necessary for an enlightened society, if our hope for the future rests in the quality of graduate education, and if we are committed to the profession of graduate school administration, then we must be willing to deal with these challenges in a positive way so that competent and qualified educators do not become so frustrated that they, too, decide to abandon ship and remain behind on the planet of "Disillusionment."

11. RESHAPING LIBRARY SERVICES AND INFORMATION SYSTEMS—THE RESEARCH AGENDA

Presiding: Reuben W. Smith, *Dean of the Graduate School, University of the Pacific*

Speaker: Deanna Marcum, *Vice President, Council on Library Resources, Inc.*

Deanna Marcum

The Council on Library Resources is an operating foundation, now in its 28th year. Originally funded by the Ford Foundation, it is presently funded by eight or nine private foundations (Mellon, Carnegie, Ford, etc.) and the National Endowment for the Humanities. Throughout its history, CLR's program has concentrated on academic and research libraries because of their role in collegiate instruction, their centrality to research and scholarship, and their fundamental importance to society.

CLR was chartered in 1956 to help libraries take advantage of new technologies in order to improve operating performance and expand services to users. That purpose is still valid, but now the phrase "new technology" is applied to those computing, telecommunications, and information storage technologies that have brought great change to many aspects of libraries. The same technologies are also eliminating, or at least reshaping, the traditional boundaries between the activities that promote scholarly communication — scholarship itself, publishing in its many forms; distribution methods; and the library activities that assemble, organize, preserve, and make accessible information of all kinds.

While academic and research libraries remain our point of departure, their setting is much changed. The Council's program, reflecting the complexity of that setting, concentrates more than before on understanding the implications for universities, libraries, and individuals of present technological capabilities and the accompanying influence of technology on economics and organizations. It is certain that libraries need to change the way they work, individually and collectively, in basic ways. Library management has a much more demanding agenda than ever before. Most important, there has never been a more promising time to extend access widely and to use information more productively to advance personal and public aspirations.

The Council's program has five principal components: analysis and research; systems development in three areas (Resources: Availability, Access and Preservation; Bibliographic Systems, and Management); and the Profession of Librarianship. Within the components are a limited number of primary activities. The program components, while not absolutely fixed, reflect the long-term program direction of the Council. The number of activities at any given time rises and falls as a function of need, opportunity, and, of course, the availability of funds.

SOME CONCURRENT

PRACTICE AND PROGRAMS TO IMPROVE PERFORMANCE OF GRADUATE ASSISTANTS

THE STATUS OF HIGHER EDUCATION LEGISLATION

FRAUD IN ACADEME: PROTECTING THE INTEGRITY OF THE INSTITUTION AGAINST ACADEMIC DISHONESTY

SESSIONS

A GLOBAL RESEARCH PROGRAM FOR MINORITIES IN GRADUATE EDUCATION

GRADUATE RECORD EXAMINATIONS REDESIGN—PLANNING FOR THE FUTURE

GRADUATE EDUCATION'S PARTICIPATION IN TEACHER PREPARATION

With that overall view of CLR, let me briefly explain how current development activities are expected to affect future library services and operations. I am going to offer examples from two of CLR's program efforts: Bibliographic Services and Preservation and Access.

The Bibliographic Service Development Program is CLR's largest program in terms of dollars ($5 million over seven or eight years). Its major goal was to find a way to provide unimpeded access to bibliographic information. The need for this program stemmed from the emergence of different (and unfortunately) competitive systems for sharing bibliographic records in machine-readable form. The problem, of course, is that users of one system do not have access to the bibliographic records in the others.

The approach taken by the Council was to fund a Standard Network Interconnection—a set of protocols that will allow the user of one system to gain access to the information in other systems as well. In another few months, the first authority file records will be exchanged over the link between the Library of Congress and the Research Libraries Information Network and later, the Washington Library Network. Once bibliographic information is exchanged nationally, it can also be exchanged internationally, a most important feature since needs of scholars are not geographically constrained.

An important outgrowth of machine-readable records is online catalogs, which have become quite prominent in research libraries. A CLR study of users' reactions to several different online catalog systems has resulted in virtually all of the new systems coming onto the market incorporating the results of the research.

The computer has made possible other library functions never before achievable. For example, participation in the Research Libraries Group's programs for nearly a dozen research universities with large East Asian studies programs has resulted in a special terminal being developed for Chinese, Japanese, and Korean language materials. The benefit is that for the first time, these oriental languages can be represented in the vernacular in online catalogs. The speed of processing, as well as incentives to share resources among institutions, has risen dramatically.

This brief and incomplete checklist of accomplishments, impressive as it is, does not mean that all is well with the nation's bibliographic system. There is a fundamental problem about the constraints that still exist on use and access to bibliographic records. While testing of the standard network interconnection is scheduled, thus far the way has not been cleared for library users in Online Computer Library Center libraries to have access to bibliographic records of RLG libraries and vice versa. One of the troubling aspects of this fact is that a once unified database of serials in machine-readable form is now divided with some research libraries entering serials information into OCLC and others entering data into RLIN.

Similarly, a cooperative national plan that has been developed to convert catalog card files into machine-readable form so that individual libraries' online

catalogs will be more complete has been thwarted because the two major utilities have not yet found ways to exchange records; therefore the converted bibliographic records are not accessible to all research libraries.

Perhaps the most troublesome aspect of all is that with Title II-C grant funds, libraries have been encouraged to embark on resource sharing programs and cooperative collection development. A proviso in the legislation is that the resulting bibliographic records must be accessible but the Department of Education has allowed that to be interpreted to mean entering the records in the database of one of the utilities.

A second example is preservation and access. The Council on Library Resources has funded research on paper chemistry and other preservation-related topics for the last 20 years. Yet, the heart of the preservation problem itself has not been tackled even though the awareness has been substantially heightened. After several sessions with university officers, scholars, and librarians, we decided to make one more attempt to *do something* about (as opposed to *plan for*) preservation. In the old, established university libraries, particularly those in the east, there are millions of books that have deteriorated beyond use. Studies conducted at the Library of Congress, New York Public Library, and Yale University show that the majority of books published after 1850 (advent of acidic paper) and now 50 years old will not withstand a double folding of the pages without breaking. To capture the content of these brittle books could cost millions of dollars, certainly more than any one library will be able to spend from its budget.

With funding from the Exxon Foundation, CLR is encouraging a two-level approach to the "brittle books" problem, recognizing that there are many ongoing projects to address other aspects of preservation. On the one hand, some of the Exxon money has been earmarked for establishing a mass-production preservation facility to be used by libraries in the mid-Atlantic States. The staggering number of items needing preservation calls for a near-factory-like solution. The other Exxon funded activity is the creation of a Preservation and Access Committee. Chaired by Billy Frye, Academic Vice President at the University of Michigan, and made up of university officers, scholars, and library directors, the committee is charged with shaping a strategy for preserving the nation's intellectual heritage, with special attention to the brittle books problem. That is, needless to say, a very big job. In effect, the committee's assignment is to go out of business by identifying the agencies and organizations that must be involved and by specifying and helping to install the structure needed to guide future activity. The committee recognizes that in order to accomplish the work and to fund it, a collaborative effort is required—universities, the federal and state governments, foundations and publishers must all be involved.

There are some fundamental problems in this area. First, there is the problem of magnitude. The number of brittle books is huge and the amount of money required may exceed $100 million spread over the next ten years. But the number of libraries directly affected is relatively small. It is sometimes hard to con-

vince administrators and librarians of younger institutions that preserving the intellectual heritage is a national problem to which all should contribute. In the end, it becomes clear that these costs are justified only when the act of preserving materials makes possible providing access to the formerly unavailable resources for scholarship. The cost is great indeed, and that level of support can come only if the scholarly community and librarians make a united, and sound case for a national effort.

Finally, there is the problem of proprietary vs. national interests. In real measure, the case for preservation and access must be made on the basis of society's needs. But we are confronted with the realities of the commercial sector's desire to lock up its revenue-generating resources. There is a fundamental concern that if proprietary interests dominate decisions on what to preserve—and in the end, selections must be made—the decisions will be based on cash flow projections, not on the basis of the needs of research and scholarship.

Plenary Session IV

Saturday, December 8, 1984, 9:00 a.m.

Presiding: Arnold E. Schwartz, *Vice Provost and Dean of Graduate School, Clemson University*
Speaker: Theodore M. Hesburgh, *President, University of Notre Dame*

THE SOCIAL RESPONSIBILITY OF GRADUATE EDUCATION

Theodore M. Hesburgh

I was happy to learn that your 24th Annual Meeting is addressing itself to the issue of quality for the needs of the nation. Just last summer, I reread John Gardner's book, *Excellence*, in its new revised edition. It is just as relevant and important today as it was twenty years ago when he first wrote it.

I was pleased to see my favorite paragraphs in the first edition reappear in this one. May I share them with you.

> "It is no sin to let average as well as brilliant youngsters into college. It is a sin to let any substantial portion of them — average or brilliant — drift through college without effort, without growth, and without a goal. That is the real scandal in many of our institutions."
>
> "We must expect students to strive for excellence in terms of the kind of excellence that is within their reach. Here we must recognize that there may be excellence or shoddiness in every line of human endeavor. We must learn to honor excellence in every socially acceptable human activity, however humble the activity, and to scorn shoddiness, however exalted the activity. An excellent plumber is infinitely more admirable than an incompetent philosopher. The society that scorns excellence in plumbing because plumbing is a humble activity and tolerates shoddiness in philosophy because it is an exalted activity will have neither good plumbing nor good philosophy. Neither its pipes nor its theories will hold water." (Gardner, *Excellence*, p. 102)

John Gardner, I trust, would also cheer the theme of this conference. His whole book is on quality for the needs of the nation.

I would like to emphasize two particular themes in my remarks:

1) The importance of academic excellence as the most essential quality and hallmark of higher education's social responsibility in the service of national needs, and

2) Beyond the nation, the need to incorporate into graduate education a commitment of service to humankind everywhere—the often missing international dimension.

Neither of these themes are fads. Excellence is important always and everywhere, and our universities and graduate schools will be at their very best when they cherish and foster academic excellence. Secondly, no man or woman is an island, as John Donne wrote. We must care for everyone, everywhere, always. Both these themes, academic excellence and concern for the good of humankind everywhere are endemic and essential to the highest quality of graduate education in our times, and in every time.

The first theme is our social responsibility to the nation as institutions of higher learning: to create and preserve and promote excellence in all its intellectual and moral dimensions, especially in the lives of our students and, subsequently, in society at large.

Why did our society give us birth in the first place? We get a clue from the founders of Harvard who did not want their colonial religious leaders to be without learning and culture. We get another clue from Thomas Jefferson who declared it impossible to create a democratic republic, in contrast to the aristocratic societies of his day, without an educated citizenry. He was rather blunt, to say the least, in outlining the alternatives:

> "I hold it to be one of the distinguishing excellences of elective over hereditary successions, that the talents which nature has provided in sufficient proportion, should be selected by the society for the governance of their affairs, rather than that this (governance) be transmitted through the loins of knaves and fools, passing from the debauches of the table to those of the bed." (Letter of Thomas Jefferson to George Washington, September 9, 1792; *Writings of Thomas Jefferson*, III, p. 466)

The practical implementation of this theme was Jefferson's founding of the University of Virginia. He preferred to have this act stand as his epitaph rather than that he had written the Declaration of Independence and had been our third President.

Others like Jefferson and the founders of Harvard, founded colleges that dotted the landscape of America, fostering culture, science, and arts, giving new vistas to the sons and daughters of immigrants, matching their march to the West.

There soon enough came a time in the last century, and increasingly in this, when the development of all professions, and all arts and sciences, called for a natural progression from those somewhat primitive, but effective, classical undergraduate colleges to a higher form which we called graduate schools, following the German university model.

Graduate schools were born of the need for greater excellence in our pursuit of education and professionalism and culture in our society. If all education worthy of the name requires excellence, how much more our graduate schools which were born of a need for higher excellence in academic life and practices. At a certain point in the growth of our modern society in America, it became

evident that academic excellence required not only the preservation and transmission of culture and learning, but the growth and discovery and creativity necessary for the vitality of our culture in a very competitive and pluralistic world.

Such were our roots. Our task today is to make the tree and branches and fruit worthy of those roots so deep in our history as one of the first really free and democratic societies. Our institutions of higher learning are not of divine origin, nor are they granted automatic immortality. They will grow in quality and flourish only as we are true to the requirements of excellence that gave them birth. We are the guardians of that heritage and to the extent that we are faithful to that heritage of excellence, we will not just survive, but prosper.

But here, in the real and concrete world, we face some very specific and somewhat unique problems in America. We have a dual requirement at the very heart of our educational endeavor, and on all levels, that seems almost a contradiction in its demand. We are required by the very nature of our endeavor and of our society to strive simultaneously for quality and equality.

The two goals are only differentiated by the letter "e," but they are often in seeming conflict with one another. Yet if we do not achieve both together, the one unachieved, either quality or equality, will spell the failure of our total educational endeavor in America.

Quality is perhaps easier for us to understand, even though always difficult to achieve. Let us face it honestly; many of the activities and tendencies in our institutions are anti-quality and pro-mediocrity. Unionization, for example, tends to focus attention on maximum material rewards for minimal working hours. It doesn't have to be this way, but this is how annual contract discussions are described; and it says little about standards for excellence, quality of teaching, academic morale, differential performance from awful to awesome, academic productivity of high or low quality, and many other salient indicators of quality or the lack of it. Everybody is judged to be in the same boat, and everybody receives the same rewards, irrespective of differing personal efforts and results.

All this is hardly a formula for excellence. I say it realizing full well that unions in academia, as in industrial enterprises, have raised dismal to decent wages. But that is for us only the beginning, not the ending of the road to excellence. The methodology of the marketplace is not necessarily ours, too.

The best graduate schools also generally pay the best salaries, but that alone does not make them excellent. Other completely different factors do: like the quality of their intellectual life, their dedication to great teaching and vital research, their ability to attract and support talented graduate students, the availability of fine libraries and laboratories and computer facilities, the whole general atmosphere of learning and discovery that makes the place exciting and the work rewarding.

Creating such a place and such an environment should command most of our time and efforts. I must admit that most of the time I have spent presiding over discussions elaborating the ever more complicated and constricting details of

academic regulations and administration have added little to the quality of the institution. In many ways they are counterproductive. We all believe in fairness and due process. Administrators especially should be bound to these norms and should be above personal prejudice and petty vindictiveness. But all of these byzantine regulations often impede the tough decisions regarding excellence that alone can insure the continuing quality of an institution. Often enough, regulations foster and protect chronic mediocrity or moribund scholarship or deadly dull teaching. More and more, I find administrators ultra cautious in doing what they know they should do to achieve greater excellence, especially because they know if they do it, a lawsuit is bound to happen and the department will be embroiled in contention and bad feelings.

Again, excellence, and only excellence, should be the rule. Tough decisions do not preclude humanity and compassion in the way we act, but act for excellence we must, or we will not ever achieve or maintain it.

I remember once visiting the Vice Chancellor of Oxford University, Sir Maurice Bowka. At ten o'clock in the morning, he was sitting at an uncluttered desk, no telephone in evidence, reading a book of Greek poetry. I asked him in astonishment—thinking of my own office back home and the rather constant turmoil of my days—"How does this place get run?" His answer was simple, "By tradition." Then I realized that he was speaking about a tradition of excellence that really governed the place, that "thin clear stream of excellence" about which Sir Eric Ashby, former Vice Chancellor of Cambridge University, so often speaks.

I really do not believe that presidents can do much about academic excellence beyond first cherishing and nurturing it wherever it can be found, supporting and liberating scholars who alone can achieve it, creating the academic conditions in which it can flourish, attracting the scholars who personify it, and lastly, of course, soliciting the funds that make it possible, both for faculty and students. No one ever claimed that excellence comes cheaply. Also, presidents must insist upon and support wholeheartedly those tough decisions, up and down the line, that root out mediocrity and reward quality.

John Henry Newman once said that "calculation never made a hero." Mechanical regulations and egalitarian compromises never made excellence either. The way to excellence is against the grain and up river against the current of easy-going, *laissez-faire* acceptance of what is, rather than asking constantly what should be.

If quality is that difficult, what of the other twin goal of equality that must also characterize our universities and, especially, our graduate schools? I cannot give you easy answers here either. We have spent more than two centuries trying to make equality a reality in America. As a guesstimate, I would say that we are probably more at ease and more deeply committed to quality than to equality of opportunity within our institutions. Equality is a particular imperative of American graduate schools, one deriving from a particularly bad heritage within our society which began with the claim that "All men are created equal," and then

pursued slavery and tolerated its aftermath for more than a century. It is a long way from the Emancipation Proclamation of 1863 to the omnibus Civil Rights Act of 1964, a rocky road indeed.

One cannot claim that the '64 law changed everything, but it did eliminate forever the system of apartheid that existed in all states South of the Mason-Dixon Line, *de jure* there and often enough, *de facto* in the North. Systemic, legal, institutionalized denial of opportunity was abruptly terminated in '64, but positive equality of opportunity requires far more than a law.

During my fifteen years on the Civil Rights Commission, from its beginning under President Eisenhower until President Nixon's re-election when he fired me, it was evident that the untractable triangle of equal opportunity was made up of education, jobs, and housing. Of these, education on all levels was the most important by far.

With a good education, a black can generally obtain a good job at good pay, rent or buy a good house in a good neighborhood with good schools so that his and her children can repeat the process and reverse the dismal traditional downward spiral that operates for the black who is born in a ghetto, with bad education, no job because of no qualifications, no money for decent housing, no opportunity for the next generation, etc., etc.

We are at the upper end of the ascending spiral, but it would be difficult to overemphasize the importance of graduate and professional school contributions to the final achievement of equality in America.

Since 1964, about five times more blacks complete high school than before and four times as many attend college. As to graduate schools, I would wager that most of them have fewer black students than during the first fervor some ten years ago when many more blacks began to graduate from college. Professional schools do somewhat better, since they offer a quicker road to upper-middle-classdom through law, business, and medical practice, the same route that other minorities have taken.

All of us who have been concerned about the presence of more blacks on our faculties find that we have been standing still or slipping back over the past five years. What is even more dismal is the shrinking number of black graduate students along the spectrum of the arts and sciences and engineering. If there are few in the pipeline for the Ph.D. in these areas, how can we possibly recruit more black faculty members in the future?

What I have been saying of blacks is relatively true of other numerous minorities, especially Hispanics. It seems to me that new and creative endeavors are needed, such as recruiting the most promising minority students in our own undergraduate colleges, persuading them that they can be necessary role models for the upcoming generation, and seeing that they are financed—as most promising white students are—through the Ph.D. in areas where they are now terribly unrepresented. We must grow our own seed corn or there will be no future harvest. And at the moment, the future looks absolutely dismal.

I have been involved in a program called GEM which has had considerable success in motivating minority students to pursue graduate studies in engineering. We need similar efforts in all disciplines.

Other countries may not have our dual problem of quality and equality, but our primary social responsibility is to the country that has nurtured our institutions. We cannot expect someone else, like African or Caribbean universities, to solve our society's and our universities' problem. We must solve it and we have the means to do it. We also need the motivation and the programs and, of course, the financing. As to the latter, I find we can generally finance anything we really want to do, like obtaining a good quarterback.

As in the case of quality, here again the president is impotent (and, I might add, frustrated) without the total commitment and cooperation of the faculty.

Look upon equality of opportunity not as a diminution of quality, but a broadening of talents within our schools and universities. We are a variegated nation with more blacks than Canada has Canadians, more Hispanics by far than all Australians in Australia. As Jefferson said in an earlier citation, we have only to find and nurture "the talents which nature has provided in sufficient proportion" and I would add, among all races and ethnic groups that populate our blessed land. We pride ourselves on the number of Nobel Laureates that Americans garner each year. I would remind you that about half of them were born in other countries and flourished here because of our equality of opportunity and commitment to quality education.

I conclude this first part of my remarks as I began them. We have these two high goals of quality and equality which represent our graduate schools' social responsibility to the nation that gave us birth and favored as well as financed our growth. Unless we achieve both of these goals together, our total debt to America will remain half unpaid.

As to the second part of my discussion, may I begin by asserting that the social responsibility of American graduate schools does not cease at the water's edge of our coasts. Humanity and its problems range worldwide and so do our social responsibilities.

Some may counter that we have enough problems at home. The larger problem is that we are the most affluent country on earth. Our poverty level is above the income of most of the people on earth. We, despite our problems discussed above, have the lion's share of all the blessings that humanity seeks on this planet: food, housing, health care, communications and transportation, education, and, most especially, freedom. In our particular context, no country on earth can begin to match our higher educational establishment which has quadrupled since 1950, what it took over three centuries to build from 1636 to 1950. We have every type of institution, large and small, private and public, religious and secular, black and white, endowed and unendowed, two and four year colleges and a wide variety of graduate and professional schools that teach at the highest levels of doctoral and post-doctoral studies, every conceivable art and science and profession on earth. As a result, we produce a veritable army of

well educated men and women, including about 350,000 annually from other countries.

If we make them work and help them grow, as John Gardner says we must, he adds that we must also provide them with goals that transcend the accumulation of material wealth.

Another way of saying it is that for education to be truly meaningful, it must also endow a person with values. Of course, we can educate our students to be competent, but the further question is: how will they use their competence, for self alone, selfishly, or for others, too, in service? Service to the wider world community with its enormous human needs is not automatically given by all those or any of those who are competent to help.

I believe we are simply unworthy of our unique and abundant blessings and of our high calling as educators if we cannot present enough of the world's plight to our students that they are moved to compassion, as the good Samaritan was moved to compassion after the priest and the Levite had passed by, averting their eyes from the wretched scene of the robbed and wounded man, because they did not want to become involved.

We've had enough of that attitude at home where neighbors close their ears to screams of someone attacked on their very street, in front of their house, because they do not want to get involved.

We are involved by the simple fact that we are human beings living on a small planet with other human beings who lack almost everything we take for granted: freedom to live our own lives as we wish, not only political, but economic freedom as well; the chronically poor are not free at all. A roof over our head, heat when it is cold, even air-conditioning when it is hot. Most of the others live in hovels much worse than our housing for farm animals. Food to eat, often too much, while a billion of them were hungry yesterday, are hungry today, and will be hungry tomorrow. Half of that billion are chronically undernourished and 40,000 of them, mostly children, will die daily of the consequences of malnutrition. That's a Hiroshima or Nagasaki every other day. There is food enough in storage, but it's our storage. Even better, we could teach them to grow food where they are. But generally, we don't. We spend billions annually on medical care; most of them do not see a doctor from birth to death. We are concerned with our production of Ph.D.s and our care of post-Docs; over a billion of them are illiterate.

I could go on, but let me just make the point that there is a humane imperative that those who are strong should help those who are weak—animals don't, but we are humans. Those with abundance should have compassion and help those in need. If our students at the highest level simply are allowed to live in a world of sunshine without ever hearing of the darkness that surrounds them, even here, but especially beyond our borders in all directions, then we are allowing them to live without compassion or commitment in a dream world that is unworthy of them, unworthy of us and of our educational institutions, and unworthy of America, too.

It is the responsibility of leaders to lead, even, or especially, when it is difficult or seemingly impossible. I believe deeply that young Americans are most generous when given a vision that transcends their petty little personal worlds, when challenged to give rather than grab everything selfishly for themselves. They are even capable of heroic effort when the vision is great enough and the demand humanly compelling. I have not even mentioned religious motivation, but this, too, is a valid appeal if we believe in the highest of all appeals—serving God in the person of suffering humanity.

I believe that this worldwide dimension of our higher educational responsibility today is so compelling that we can only sidestep or neglect it at our own risk—the great risk being for us to be untrue to our own best traditions as a nation.

How we do it is yours, not mine, to prescribe or devise. For myself, I will never cease to stress its educational importance in season and out. I hope all of you will, too.

I could add a postscript that involving our graduates in problems worldwide will also involve them in other cultures, in other modern and esoteric languages, in history, geography, anthropology, sociology, economics, and so many other academic interests lost forever to those who lead provincial and circumscribed lives. Graduates of the Peace Corps experience, some 100,000 of them over twenty years, and more have given ample testimony of this educational growth.

Even our nation would perform better internationally if somehow all of our graduate schools could divide up the world and become the focus of international interest for every country and region on earth. The State Department can hardly read the wonderful reports of our political, economic, and cultural affairs officers worldwide, but the university involved mainly in that region or country could also specialize in the history, literature, language, politics, economics, art and culture of the country so as to be a veritable national resource for ambassadors and other officers going there to serve officially.

One last word, beyond what I have promised to say here today. Last year, I had the privilege of addressing the Presidents of Canadian and U. S. colleges and universities in Toronto. On that occasion, I spoke of the moral imperative of our institutions to indicate to our students, somehow, in the course of their years with us, the dimensions of the nuclear threat to humanity, what it really is, in actual dire detail, and what they might do about it, since it threatens literally to obliterate everything in their world. I will not repeat that speech, although you will be able to read an enlargement of it in a chapter in a book the American Council on Education is publishing soon on *The Moral Dimensions of Higher Education*.

I would close by saying positively that graduate education in America, for all its faults and problems and challenges, has never been stronger. It may become smaller as the cohort of graduate students shrinks, but even this possible constriction can be an opportunity for fine tuning together, everyone not trying to do everything, quality rather quantity, greater equality of opportunity, even

within a diminished universe, whatever that costs, and the inspiring of those students we have, even if fewer, to look out upon a broader world that might very well be enriched by them. They, too, will be enriched by their enlarged and generous compassion and commitment.

Plenary Session V

Saturday, December 8, 1984, 10:45 a.m.

Presiding: Lee B. Jones, *Vice President for Research and Dean of Graduate College, University of Arizona*
Speaker: Steven Muller, *President, The Johns Hopkins University*

THE FOREST NOT THE TREES

Steven Muller

My theme for this morning is that graduate education in the United States is in a very particular period of transition. In order to understand the terms of that transition, and to get a sense of where we are going and ought to go, a perspective is required—not a perspective year to year, but somewhat longer. It is very audacious to try to take that long perspective. It might be a useful subject for a book, but not one that I would try to write. In a fairly short talk what I have to say will inevitably be sketchy and more impressionistic than detailed. I am going to try, as my title implies, to take a "bird's-eye" view of the forest rather than looking at the trees, and if you will fasten your seatbelts and bear with me, we will get started.

Where I would like to start is with some numbers that may not be unfamiliar to you but that are so staggering that I think they are worth repeating. In order to understand the transition that we are now experiencing, we really have to be fully conscious of how young graduate education is in this country. It dates back only to the 1870s. You are talking about a century of post-baccalaureate education and very little more than that. The enterprise of those of us in this room has undergone a miraculous, stupendous expansion since World War II. I have some numbers that compare where we were in a few select categories in 1950, and where we were in 1981—which happens to be the last year for which I was able to get printed numbers.

In 1950, 58,000 master's degrees were awarded in this country and in 1981 we awarded 249,183. If you round that out to roughly 60,000 in 1950 and to close to 300,000 in 1981 you are talking about a five-fold expansion. Those numbers would indicate that in the 1950s approximately one-half million people received the master's degree in that decade and entered their future careers on the basis of that master's, whereas, in the 1970s somewhere on the order of three million master's degrees were awarded in this country. As far as doctorates are concerned we awarded, as a nation, 6,600 doctorates in 1950, and we awarded 32,839 in 1981. It is the same five-fold expansion, and what it means is about 65–70,000 people earned doctorates in the decade of the fifties whereas over

300,000 earned doctorates in the decade of the seventies. Since the Second World War, this country awarded roughly one million Ph.D.s, that is between 1945 and into the early eighties. That is a lot of Ph.D.s and, presumably, the great majority of people who earned their doctorates are still active with their doctoral work—by no means all of them (and I have no statistics) but certainly the expectation would be that more than three-quarters of them are still professionally active.

The institutions conferring master's degrees expanded from 453 in 1950 to 523 in 1981. That is not a big expansion; on the other hand, institutions conferring doctorates expanded from 123 in 1950 to 452 in 1981. I don't have a lot of other numbers that I want to throw at you but it is interesting to note that of the 58,000 master's degrees that were awarded in 1950, 41,000 were awarded to males and 17,000 to females. Of the 294,183 awarded in 1981, 145,666 were awarded to males and 148,517 were awarded to women, which means that women went from less than half of the master's degrees awarded in 1950 to more than half of those awarded in 1981. It would be unfair not to mention what happened with the doctorate. Of the 6,600 doctorates awarded in 1950, 6,000 were awarded to men and 600 to women. Of the 32,839 doctorates awarded in 1981, 22,595 were awarded to men and 10,244 to women which meant that women went, from roughly one-tenth of those earning the Ph.D. in a given year to one-third of those awarded the Ph.D.

We now might ask ourselves what do these numbers mean and indulge initially in some pretty obvious reflections. Obviously the numbers reflect substantially increased and substantially broadened access. People have been earning advanced degrees in larger numbers and from a diversity of backgrounds, and that simply was not the case before. What is equally true and not always stressed sufficiently is that this applies not only to students but to the professoriate as well. If I had wanted to share with you just a whole bunch of statistics (and that is not what I intend to do), I could also have told you about the expansion of faculties commensurate with this quintupled multiplier in degrees awarded and earned. The broadening and increase of access have not been limited to students but to those who teach as well.

Second, and this is the point we need to recognize, this means an enormous investment—billions of dollars over decades in people and facilities. While there were not so many new institutions granting the master's degree, their facilities were obviously hugely expanded to handle these larger numbers. When you think about what it means to have a four-fold increase in institutions offering the doctorate and what investment that represents in facilities and people, it is not infinite but it certainly is huge. Obviously, to increase that significantly in the course of essentially three decades or four there has been some dilution in quality in the wake of this kind of rapid expansion, both of student numbers and faculty numbers. You could argue about where and how that dilution has occurred. I do not think that you can deny that it is present. It would, in fact, be another miracle had that not occurred.

That leads me to the next major point that I should like to share with you. What has been accomplished in graduate education in this country and what is now being done is, in my opinion, impossible to understand unless you place it in at least a raw and even sketchy view of its socio-economic context. Let me try to make a few observations about that. The four decades about which we are speaking can be characterized up until the very recent past as having featured a constantly expanding economy and also rising employment. There have been recessions in that forty year span, but these have been minor compared to the Great Depression of 1929 into the thirties. If you look at this whole period from the "bird's eye" view, it has been a period of economic expansion and rising employment.

Also, there has been a huge and very familiar re-orientation of the nature of the work force and that relates directly to the production of all these advanced degrees. The huge change has been the relative growth of service industries as opposed to the productive industry. If I wanted to, I could pause here and talk about the mechanization of agriculture, the move of people from the land to the city, what has happened to our smokestack industries, and various other things. We are all familiar with that. We have had—with the expansion of the economy and with the rise in unemployment—a shift in the way in which the economy functions that has been steadily moving away from production toward services provided by the service industries. Another point is that, in this changing economy, with the shift toward service industries and the introduction of technology that removed people from the process of production, there has been, and continues to be, a growing need for a diversity of highly specialized skills. The degree of highly specialized schooling that is now sought in the labor market is much greater than in the pre-World War II past and is continuing to show both increase and continuing differentiation. Finally, there has been an explosion of new professionals. People are now taking degrees and launching careers in not one or two or ten or a dozen or several score but several hundred professional categories that just did not exist thirty or forty years ago. I am using, of course, World War II as a watershed because it is convenient and because it was such a wrench in the way in which the economy functioned to produce things for the war with so many people drained out to the military service. I do want you to understand that I do not attribute any of this particularly to World War II. If you think, however, about what people are earning master's degrees in, in particular, and what they do with them and how they classify themselves professionally, you are probably half the time talking about professionals that have become differentiated, distinguished and achieved nomenclature of their own and credentialing of their own in the last forty years.

There is and continues to be as a result of all this, an obvious although often ignored, widening gap between the functioning of the American economy and the functioning of the economies of so many other countries or so many other peoples in the world. I am talking here not about the differentiation between the United States and Western Europe or Canada. I am talking about the United

States versus the less developed countries or the Third World countries. The most striking illustration of that is the shift of production to countries with lower standards of living and lower labor costs. It is no accident that so much of what we consume is not so much made by machines, or the American work force, as it is produced by Filipinos, by people in Singapore, by people in Hong Kong, by people in Taiwan, by people in the People's Republic of China, by people in Latin America, by people in Africa. This is a market reflection of the still widening gap between the kind of economy we now have and the kind of economy that exists elsewhere in the world.

That undigested gap is both a tremendous challenge and a tremendous economic shift, and I will return to what it means to those of us in graduate education. Where are we—and at this point I am using "we" just once for we the American people in terms of our economy and our society—where are we now and where do we appear to be going? I am going to leave out the questions of world peace and talk simply in the socio-economic terms that seem to me to go along with the huge increase in the volume of what we in graduate education have been doing. We are also trying to make a transition in our socio-economic context. You all have heard the single catch word that most describes that, which is the "re-industrialization" of the American economy. It is not likely that the balance between production and service industries is going to stay where it is. Our future appears to involve a still greater relative increase in service industries rather than in production, but in order to remain capable of sustaining that, we have to re-industrialize the productive sector, taking advantage of new technology and coping with the introduction of labor-saving devices.

A large part of this change will occur toward the end of this century, with an increasing reliance on robotics of one kind or another but that will also feature other types of non-labor intensive development as well as involving the use of new materials. If you think about what you are now wearing and what you are now eating and what you are surrounded by, it may shock you to realize that most or all of that is the product of the last forty years. Some of you are more or less the same age as I am, and you can recall periods before transistors, before nylon, before plastic, before styrofoam, before non-biodegradable products. Who wears anything today that does not have synthetic fiber, even if it is only in the sewing! What has happened to our food is another interesting story which you can reflect on at lunch.

Another major feature of where we already are and where we are going is that we are either blessed with or condemned to substantially more leisure. Very briefly, we will live longer. Our life span both for males and females has dramatically increased in that forty years by roughly ten to twelve years average per person—still uneven among the sexes in that women live longer than men. The work day has shrunk, and the work day will continue to shrink. As we deal with the problem of needing fewer people in the productive sector, we are going to have an increasing pressure for early retirement relative to longer life, so that both during the most intense period of our careers and afterwards, we are going

to have more leisure. If I had another hour and a different setting it would be fun to tell you that the greatest social achievement of the United States in the twentieth century has been the democratization of leisure not the democratization of the political or economic process. Leisure which used to be reserved two or three centuries ago for the artistocracy or oligarchy is now something to which all of us have access. If you want economic proof, we have in this country one of the biggest service industries in the leisure industry, which makes sweatsuits, special shoes to run in, and provides the entertainment we use to fill our leisure time.

Our economy also is already functioning to a greater degree than most of us are prepared to understand or admit in a context of international economic interdependence which has nothing to do with ideological internationalism but which has to do with economic reality. When half your goods are produced abroad, when your country runs a trade deficit with the rest of the world of over $100,000,000,000 a year, when you are dependent now on technology which has shrunk the world in communication and travel and in production terms, that economic interdependence is here. That means the end of autarchy—the technical term in economics for a self-contained national economy. It is, in fact, true that close to 100% of the economic statistics produced in this country are basically garbage and tend to poison the mind and the understanding. We keep hearing about *American* interest rates, about *American* money supply, about a self-enclosed autarchic economy. The statistics are right. It is just that they are about twenty years out of touch with reality because the relevance today is how all this interacts with the rest of the world. We drag that in by the short hairs in terms of trade deficits, international currency problems, and the relative value of the dollar. We really ought to reorient our statistics to reflect the interdependent economic environment in which we live, but we have not done that. We will be doing it, however, because what I am saying now is going to be a much more evident fact in the next two decades.

We have an awesome highly visible problem and that is that, having already embarked on this socio-economic transition, we are having enormous difficulty coping with its victims. You have heard those victims referred to as an "underclass". Regardless of what you call it, it is people living below the poverty level, and you can see it without reading about it. You can go in this city or in any large city—if you are not blind or not chauffeured all the time in limousines from one closed parking garage to another. This country is full of the homeless and unemployed. Unemployment among unskilled people is staggering. National statistics are reassuring—7% unemployment, but among unskilled people, many of whom are ethnic minorities, it is running in the 40–50% range. This society has a tremendous problem of social disease, and we have managed to ignore that problem or live with it—with addiction, crime, human waste, human suffering, with homelessness, and with the deinstitutionalization of those who are mentally ill. We have not really been able to do anything to address this growing proportion of the victims of our socio-economic transition. If you live as I do in Baltimore and see what has happened to people who have lost their

work at Bethlehem Steel or in the shipyards or in some of the automotive assembly plants, you know that there are real people who really suffer and who are at an age and have a level of education where it is impossible for them to find new employment, and they sink down into whatever you want to call it—"under class" if you will.

Now why am I laying all this on you? What I want to say now is what does this mean to us who are engaged in the business of graduate education? I think that it means a few things that most of us would acknowledge but that we tend to sweep away under the rug because when you are busy foresting tree by tree you do not look at the whole forest. One thing that I think has happened without much argument is that we have blurred the distinction between professional and graduate education. The old professions, presumably, are not represented in this room. This is not a conference of people devoted to the education of professionals in medicine or in law nor in training people for the clergy nor particularly of people devoted exclusively to graduate education in engineering. I would think that most of the institutions that are represented in this organization offer degrees for people who want to be psychiatric social workers, or clinical psychologists, or that whole new range of master's and doctorates. And I think that it would be very hard for the deans of most graduate schools to give a reasoned analysis that all those graduate degrees under that particular heading are nonprofessional degrees. In fact, I think that it would be hard today to find a distinction we used to be able to make between a nonprofessional and a professional master's or doctoral degree. Certainly to go back to those numbers, it is not reasonable to assume that, in fact, we have absorbed one million Ph.D.s into the academic market place alone in the decades since World War II. We have absorbed some of them but not a million. Many of them are working, presumably gainfully, elsewhere—not teaching—which has raised in the past and will continue to raise the question of whether the research doctorate is in fact the only doctorate at the graduate level that we ought to award—especially when we have blurred the distinction between the professional doctorate and the nonprofessional doctorate.

Next, we are to some extent rigidified by that investment that I referred to earlier. Each of us is heir to the enormous amount of money, effort, energy and talent that has been invested to bring us to the point where we are capable of granting all of these degrees. What I am talking about here is that most of us in this room, presumably represent among other things not just ourselves and our profession but our institution. And if we have some longstanding connection with that institution we are committed to institutional survival. I am not here to tell you that institutional survival is a bad thing or that it doesn't matter, but I do say objectively one has to recognize that it rigidifies one's thinking. From a "bird's eye" perspective watching the health of the forest, it is fair to say that there are higher priorities than the survival of people's jobs and the survival of each and every institution in the way in which it is now set up. To make major reforms on the academic scene is still tantamount to moving graveyards, and

transition is difficult, but it is necessary even when there is so much investment and so much protectiveness about the investment.

We are also still trying to cope with the undigested internationalism which we ourselves have experienced over the last forty years. It is a fact that among those people who were awarded all these degrees is an increasing number of immigrants to this country who came here during those forty years. While I am, as you have heard from the introduction, one of them, many of these immigrants are very different. If you look at the demographics on the United States and the projection trends which are obtainable from the Bureau of the Census, it is interesting to realize that one of five Americans today has no European roots, and that it will become one in four by the end of the 1990s and probably one in three by the end of the first quarter of the next century. That tells you something about undigested internationalism because much of that is due to continuing immigration—legal or illegal. A number of these degrees were, in fact, awarded to foreign students. It is very hard to get accurate statistics—not on how many foreign students were among the degree takers—but what happened to them afterwards because some of them remained here as professionals and others went back.

Of course in all that, we have magnificently preserved, by and large, the virginal parochialism of being mono-lingual and proud of it. Americans take great delight in their inability to learn a foreign language. This has not, by the way, been the greatest asset to international marketing of the American economy nor has it been the greatest asset for American higher education at the graduate level. If you want to talk about particular erosion of quality, take a look at the criteria that are employed in your particular institution for the satisfaction of a foreign language requirement—whether for one or two. That has got to be as close to the charade involved in passing a driver's test as anything I know.

At this time when we are coping with where we have been and where we are trying to go, and when we are going through this socio-economic transition in the United States and in the world, we in graduate education are undergoing a major industrial revolution of our own. That has just hit us. It is here, and it cannot be stopped; and we are having to cope with that on top of everything else.

Where are we headed? Very briefly, it seems to me that we are headed for a huge change in the demand for our services and that change will lead to an absolute requirement that people now have for re-education either in the particular expertise in which they are already involved or a shift from one career to another in the same lifetime. It is an unacknowledged fact that while we remain monogamous as a society, we have a succession of monogamys now rather than a single monogamous commitment. It is equally true but also not really well acknowledged that most of us now have not one career but several—usually two, sometimes three. That is going to go on as the technology changes, as we live longer, as we understand also how necessary that is because certain careers are going to die on us. Re-education of professionals—and that includes graduate

education because of the blurring of the distinction—is here. We have got to give up the notion that we can turn out finished professionals. We can if we want to press hard enough do that except we have to realize that what is finished will be out of date not within a generation, not within a decade, but within three to five years in many fields. We also have more leisure and we are confronted now with a demand for our services at the graduate level which is not exclusively driven by professional ambition but by the desire to learn.

There is a marvelous irony in graduate education returning to the idea that maybe there are some things that are worth knowing and worth teaching even though they do not have anything to do with vocation. That is an older notion that we have not talked much about in most of this century. This is accompanied by a change in our delivery capacity because we are suddenly being inundated with technology that gives an outreach capacity most of us barely understand. We can, now, exchange data with lightning speed on a worldwide basis. The satellite age means we have a capacity, not only to hear but to see and hear in real time, across the Atlantic, the Pacific. We take it for granted on that basis that the unbelievably nauseating and horrible incident in Bhopal, India is available to us in living color to make us sick while we try to eat or sip our cocktails. We saw the war in Viet Nam in our living rooms. All that is there for educational purposes as well. We have all this technology, and we are going to have to think about whether, in fact, that investment in physical plant means that we continue to bring people back to the campus or whether it means increasing outreach to teach people where they work and where they live. We are going to have fewer full-time people and more part-time people and the same people will be coming back to us but not necessarily to the same institution.

Finally, and this is maybe the most important thing of all and the hardest to do, we have got to achieve consciously, deliberately and purposefully some new blend of the old role of the university in terms of transmission of values and a new role of the university in teaching at the graduate level differentiated and very complex skills. It is possible to turn out, on the one hand, people beautifully trained now in a particular speciality who cannot really write, speak, read or know anything about the history and socio-economic context of their own society. We all have our favorite examples of that. We have devalued our language. I happen to be a political scientist so I can say the fact that you can read me an article from the *American Political Science Review* bears no resemblance to your ability to command the English language because it is written, as are most professional journals, increasingly in jargon that is relevant to professionals, but is untranslatable to anybody else without a professional translator.

This is where I think we are headed. We have created in forty years a graduate educational capability nationwide that is huge, richly talented with all its flaws capable of continuing to serve, not only our country but the world, in new ways. In order to deliver services from that capacity we are, ourselves, forging new tools, particularly in the electronic tools of communication, and we can think of teaching as inevitably being a part of a communications industry, a communi-

cations revolution. We are going to have the delivery capabilities to reach untapped and huge new markets, and to understand that the market out there is terribly important. We may have difficulty attracting the full-time students that we have had in the past. We are not going to lack an audience of part-time students worldwide. It is there. Its needs are there. It is up to us to reach and deliver and as a result we are confronted with an unavoidable, radical transition. Whether we like it or not—you don't have to be a zealot for computers or satellites or television or any of those things—the fact is that it is here.

My favorite example of how unstoppable it is, is just to ask people in this audience how many of you are actually carrying calculators. I have one the size of my American Express card in my wallet. If you are not carrying one, your bank will give you one. Interestingly, we are not even producing slide rules in this country. They were very useful once but they have been superseded by the calculator. Do you love calculators? No! But they are here, and you are using them. It is going to happen. It is unavoidable. It is pretty radical. The question for us is not whether we make the transition but how we make it. It is also going to take guts. It is already taking more time than it should. We are slow to do it, and it is going to be painful. It is going to hurt. Institutional change, especially radical change, hurts and the faster it comes the more it hurts. The pain of that adjustment is inevitable. How will we come out? I predict with great confidence that we will both succeed and fail. We will succeed in making the transition, and we will fail to make it as quickly and effectively and as valuably and soundly as we should. What the margins will be I cannot tell you. What I thought, however, and still think, is that how well we do depends in part on whether we have a perspective on what is going on. So from that point of view, I hope that this "bird's eye" view has been helpful to you.

Report of the Council of Graduate Schools—Graduate Record Examinations Board 1984–1985 Survey of Graduate Enrollment

Part I
Revised

Charles W. Daves
GRE Executive Program Director
Educational Testing Service
January 1985

INTRODUCTION

Because it is difficult to obtain accurate information about graduate enrollment, particularly about trends in enrollment, the GRE Board and the Council of Graduate Schools began 14 years ago to conduct a series of annual surveys of enrollment in member schools of the Council of Graduate Schools in the United States. The Council membership consists of 372 graduate institutions that grant either the master's or the doctorate as the highest degree. The members of the Council grant over 95 percent of the earned doctorates and 80 percent of the master's degrees awarded in the United States.

This year's survey, like those of previous years, is divided into two sections. This report provides the results of the first questionnaire which was distributed in the early fall of 1984 with a request that results be returned no later than October 22. The results of the second questionnaire mailing will be available in the spring of 1985.

In addition to graduate enrollment, this report provides information about applications for graduate study, availability of assistantships and fellowships, graduate degrees awarded, and stipends for teaching assistants.

SUMMARY OF CONCLUSIONS

The data reported in the fourteenth year of this survey series appear quite useful in ascertaining short-term trends in American graduate education.

The overall results suggest that graduate schools have maintained steady enrollment. The data show slight increases in first-time enrollment, number of fellowships, and number of applications for graduate study. Small decreases were experienced in the number of master's degrees awarded.

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*For reference purposes, this report is also issued as "CGS Communicator Special Report, Volume XVIII, No. 2, February 1985."

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Stipends paid to teaching assistants in economics departments increased by 5.4% between 1983 and 1984; in electrical engineering departments, the reported increase was 5.0%; in English departments, the increase was 4.7%; and in chemistry departments, stipends increased by 6.3% during the past year.

Specific data and comments on these conclusions are included in the following sections of this report.

SAMPLE DESCRIPTION

Survey questionnaires were sent to each of the 372 graduate schools that are members of CGS. A total of 239 questionnaires were returned for a 64% response rate. Since the primary purpose of the questionnaires was to develop comparative data between 1983 and 1984, responses to enrollment questions were included in the analysis only when data were supplied for both years. This practice was not followed for stipend data because means can be compared even when the number of respondents differs. That is, responses from departments that did not offer stipends in 1983, but did offer them in 1984 were included. The numbers contributing to each mean are separately noted on each table. The effective response rate per questions varies from a high of 64% for the overall sample to a low of 32% for the question concerning stipends for teaching assistants in electrical engineering departments. While this variability is to be expected, it does make comparisons across some questions of restricted value.

Care should be exercised in attempting to compare results of this year's survey with published results of last year's survey because 1983 data reported in the current survey may differ from 1983 data reported last year for several reasons. First, although the questions and definitions remain unchanged from last year's survey, the institutions responding in 1984 are not necessarily the same institutions that responded in 1983. Second, some institutions noted that the data for 1983 they were able to provide for this year's survey were different from, and better than, the 1983 data they provided last year. Despite these limitations, the overall obtained sample (i.e., those submitting usable questionnaires on time) is highly representative of the total CGS population.

Comparison of the sample with the available population is shown in Table 1. Throughout this report, "Master's Highest Degree" refers only to those institutions for which the master's degree is in fact the highest degree awarded.

The percentages presented in Table 1 and in Tables 2 through 13 at the end of this report—show the response rate based on the number of institutions in CGS; for example, the 239 institutions providing responses to this survey represent 64% of the CGS institutions and a 64% response rate is noted. Since the sample of institutions with usable data becomes less complete as the complexity of the questions or the difficulty of obtaining the data increases, the number of institutions providing usable data and the response rate that number represents are given for each question in the data presentation.

In addition, in order to provide an indication of the representativeness of these

TABLE 1

Comparisons of Usable Sample and Base Population

	Number of CGS Institutions	*Number of Reporting Institutions*	*% (sample of each population subgroup)*
Total Institutions			
Public	255	159	62%
Private	117	80	68%
Total	372	329	64%
Master's Highest Degree			
Public	76	41	53%
Private	24	17	71%
Subtotal	100	58	58%
Ph.D. Highest Degree			
Public	179	118	66%
Private	93	63	68%
Subtotal	272	181	67%

data, the proportion of total CGS graduate school enrollment represented by the responding institutions is provided in a footnote to each table. Based upon the results of this year's survey, combined with additional data from the *Directory of Graduate Programs*, one may estimate the 1984 total graduate school enrollment for CGS members at approximately 830,000. Using this estimate, it is then possible to report that the 239 institutions that responded to this year's survey accounted for approximately 64% of the 1984 total graduate enrollment at CGS institutions. This latter figure is created by taking the 1984 total enrollment reported this year (532,207) and dividing by 830,000. For subsequent questions, a similar computation has been carried out, removing from the 532,207 the reported total graduate enrollment of each institution that failed to provide a usable response to the question.

RESULTS

The results of the survey are displayed in Tables 2 through 13. The tables present the number of respondents with usable data to each question (i.e., data for both years and for all parts of the question), the percentage that number represents of the total group or of the subgroup, the total number of students or the amount of stipend reported each year, and the percentage change from 1983 to 1984. Most data are presented by type of control (public and private) and total. In addition, Tables 2 through 7 and Tables 10 through 13 also present data for institutions classified by highest degree awarded. These categories are: Public Master's Highest; Private Master's Highest; Public Doctorate Highest; and

Private Doctorate Highest. This additional breakdown was not applied to the other questions because it was not felt to be particularly important or because the differences were too small to affect the overall conclusions.

DISCUSSION

Table 2 - Total enrollment this year remained steady. Public master's and Ph.D. level schools remained essentially unchanged while private master's institutions showed a small decrease (1.4%). Increases were reported at private doctoral institutions.

Table 3 - First-time enrollment remained stable at private and public doctoral institutions, while increases were reported at master's level schools. An overall increase (1.0%) is noted across all size ranges.

Table 4 - Total applications for admission to graduate schools showed a slight increase (1.5%). A decrease occurred at public doctoral institutions (1.5%); increases are noted at both public master's schools (4.5%) and private master's schools (3.2%).

Table 5 - The number of graduate assistants (service required) increased at all responding doctoral level institutions. The largest increase occurred at public institutions.

Table 6 - The total number of fellowships (no service required) showed an overall increase (5.6%).

Table 7 - Full- and part-time enrollment remained unchanged at responding institutions again this year.

Table 8 - The total number of master's degrees awarded decreased by 2.6%.

Table 9 - The total number of doctoral degrees awarded remained unchanged.

Table 10 through 13 - Surveys in this series have requested data regarding level of stipends paid to teaching assistants in economics, electrical engineering, English, and chemistry departments. Any efforts to determine the level of financial remuneration to teaching assistants invariably encounters a confusing array of institutional practices; such as, payment of tuition, payment for experience, taxibility of stipend, and hours of service. In response to continuing interest in data about stipends and in an effort to make meaningful comparisons, institutions were requested to provide stipends for a "model" first-time teaching assistant who commits 20 hours per week to assistantship duties in departments of English, economics, electrical engineering, and chemistry. Data received from responding institutions are summarized in Tables 10 through 13.

Economics Departments—An overall increase of 5.4% was reported in stipends paid to teaching assistants in economics departments betwen 1983 and 1984. The largest increase occurred at private doctoral level institutions (7.0%).

Electrical Engineering Departments—There was an overall increase of 5.0% in stipends paid in electrical engineering departments between 1983 and 1984. The largest increase occurred at public doctoral level institutions (5.7%).

English Departments—The data indicate that teaching assistant stipends in-

creased by about 4.7% between 1983 and 1984. The largest increase occurred at private doctoral level departments (6.9%).

Chemistry Departments—An overall increase of 6.3% was reported in stipends paid to teaching assistants in chemistry departments between 1983 and 1984. The largest increase appears to be at private master's level institutions (16.8%), but it must be noted that only five schools in that category responded to the question.

Because of variations in institutional practices regarding assistantships, caution should be exercised in using the average dollar values reported in the tables. The percentage values, on the other hand, can reasonably be interpreted to reflect changes made by institutions in their stipends levels.

TABLE 2

Total Graduate School Enrollment by Type of Institution*

	Number of Responding Institutions	*% Response***	*1983*	*1984*	*% Change*
Master's Highest					
Public	41	54%	55,127	55,061	0.1% decrease
Private	17	71%	12,872	12,686	1.4% decrease
Subtotal	58	58%	67,999	67,747	0.4% decrease
Ph.D. Highest					
Public	118	66%	358,073	357,324	0.2% decrease
Private	63	68%	105,978	107,136	1.1% increase
Subtotal	181	67%	464,051	464,460	.09% increase
Total Institutions					
Public	159	62%	413,200	412,385	0.2% decrease
Private	80	68%	118,850	119,822	0.8% increase
Total	239	64%***	532,050	532,207	.03% increase

*For purposes of this survey, institutions were asked to include all students considered as registered in the graduate school, including education, engineering, social work, medical, and business programs leading to M.A./M.S. or Ph.D., Ed.D., or other doctorates.

**Percentage figures are the number of institutions responding to this question as a percentage of the number available in the total group. For example, 41 Public Master's Highest Degree institutions responded out of a possible 76 such institutions in the CGS membership for a 54 percent response rate for that group of institutions.

***Based on the computations described under Sample Description on page 102, the 239 institutions responding to this question represent 64 percent of the CGS institutions and accounted for approximately 64 percent of the 1984 total student enrollment at CGS institutions.

TABLE 3

First-Time Graduate Enrollment by Type of Institution

	Number of Responding Institutions	*% Response*	*1983*	*1984*	*% Change*
Master's Highest					
Public	36	47%	12,189	13,315	9.2% increase
Private	14	58%	3,091	3,224	4.3% increase
Subtotal	50	50%	15,280	16,539	8.2% increase
Ph.D. Highest					
Public	107	60%	84,885	84,886	0.0% increase
Private	59	63%	26,435	26,426	0.03% decrease
Subtotal	166	61%	111,320	111,312	0.01% decrease
Total Institutions					
Public	143	56%	97,074	98,201	1.2% increase
Private	73	62%	29,526	29,650	0.4% increase
Total	216	58%*	126,600	127,851	1.0% increase

*Based on the computations described under Sample Description on page 102, the 216 institutions responding to this question represent 58 percent of the CGS institutions and accounted for approximately 15 percent of the 1984 total student enrollment at CGS institutions.

TABLE 4

Number of Applications for Graduate Study

	Number of Responding Institutions	*% Response*	*1983*	*1984*	*% Change*
Master's Highest					
Public	35	46%	24,145	25,237	4.5% increase
Private	12	50%	5,805	5,993	3.2% increase
Subtotal	47	47%	29,950	31,320	4.3% increase
Ph.D. Highest					
Public	103	58%	286,462	290,630	1.5% increase
Private	57	61%	106,753	107,841	1.2% increase
Subtotal	160	59%	393,215	398,471	1.3% increase
Total Institutions					
Public	138	54%	310,607	315,867	1.7% increase
Private	69	59%	112,558	113,834	1.1% increase
Total	207	56%	423,165	429,701	1.5% increase

*Based on the computations described under Sample Description on page 102, the 207 institutions responding to this question represent 56 percent of the CGS institutions and accounted for approximately 52 percent of the 1984 total student enrollment at CGS institutions

TABLE 5

Number of Graduate Assistants (Service Required)

	Number of Responding Institutions	*% Response*	*1983*	*1984*	*% Change*
Master's Highest					
Public	36	57%	3,401	3,561	4.7% increase
Private	16	67%	496	517	4.2% increase
Subtotal	52	52%	3,897	4,078	4.6% increase
Ph.D. Highest					
Public	102	57%	74,905	77,528	3.5% increase
Private	54	58%	18,480	18,811	1.8% increase
Subtotal	156	57%	93,385	96,339	3.2% increase
Total Institutions					
Public	138	54%	78,306	81,089	3.6% increase
Private	70	60%	18,976	19,328	1.9% increase
Total	208	56%	97,282	100,417	3.2% increase

*Based on the computations described under Sample Description on page 102, the 208 institutions responding to this question represent 56 percent of the CGS institutions and accounted for approximately 12 percent of the 1984 total student enrollment at CGS institutions

TABLE 6

Number of Graduate Fellows (No Service Required)

	Number of Responding Institutions	*% Response*	*1983*	*1984*	*% Change*
Master's Highest					
Public	8	11%	77	88	14.3% increase
Private	3	13%	65	62	4.6% decrease
Subtotal	11	11%	142	150	5.6% increase
Ph.D. Highest					
Public	77	43%	11,438	12,060	5.4% increase
Private	49	53%	9,650	10,171	5.9% increase
Subtotal	126	46%	21,046	22,231	5.6% increase
Total Institutions					
Public	85	33%	11,515	12,148	5.5% increase
Private	52	44%	9,673	10,233	5.8% increase
Total	137*	37%	21,188	22,381	5.6% increase

*Based on the computations described under Sample Description on page 102, the 137 institutions responding to this question represent 37 percent of the CGS institutions and accounted for approximately 2.7 percent of the 1984 total student enrollment at CGS institutions.

TABLE 7a
Full-time Total Enrollment*

	Number of Responding Institutions	*% Response*	*1983*		*1984*		*% Change*
			Full-time Number	*% of Total Enrollment***	*Full-time Number*	*% of Total Enrollment***	
Master's Highest	52	52%	13,548	22%	13,147	21%	3.0% decrease
Ph.D. Highest	169	62%	206,705	48%	207,784	48%	0.5% increase
Total	221	59%***	220,253	45%	220,931	45%	0.3% increase

TABLE 7b
Part-time Total Enrollment*

	Number of Responding Institutions	*% Response*	*1983*		*1984*		*% Change*
			Part-time Number	*% of Total Enrollment***	*Part-time Number*	*% of Total Enrollment***	
Master's Highest	53	53%	49,336	78%	49,212	79%	0.3% decrease
Ph.D. Highest	164	60%	220,103	53%	220,829	53%	0.3% increase
Total	217	58%****	269,439	56%	270,041	57%	0.2% increase

* Institutions were directed to apply their own institutional definitions of "part-time" and "full-time."

** This percent represents the percent of the total enrollment of those institutions responding to this question.

*** Based on the computations described under Sample Description on page 102, the 221 institutions responding to this question represent 59 percent of the CGS institutions and accounted for approximately 27 percent of the 1984 total student enrollment at CGS institutions.

**** Based on the computations described under Sample Description on page 102, the 217 institutions responding to this question represent 58 percent of the CGS institutions and accounted for approximately 33 percent of the 1984 total student enrollment at CGS institutions.

TABLE 8
Number of Master's Degrees

	Number of Responding Institutions	*% Response*	*1982–83*	*1983–84*	*% Change*
Public	155	61%	86,076	84,418	1.9% decrease
Private	78	67%	27,249	26,401	3.1% decrease
Total	233	63%*	113,325	110,819	2.6% decrease

*Based on the computations described under Sample Description on page 102, the 233 institutions responding to this question represent 63 percent of the CGS institutions and accounted for approximately 21.0 percent of the 1984 total student enrollment at CGS institutions.

TABLE 9
Number of Ph.D. Degrees

	Number of Responding Institutions	*% Response*	*1982–83*	*1983–84*	*% Change*
Public	112	63%	13,539	13,571	0.2% increase
Private	62	67%	5,394	5,380	0.3% decrease
Total	174	64%*	18,933	18,951	.09% increase

*Based on the computations described under Sample Description on page 102, the 174 institutions responding to this question represent 64% of the CGS doctoral institutions and accounted for approximately 2.3 percent of the 1984 total student enrollment at CGS institutions.

TABLE 10

Stipends for Teaching Assistants in Economics Departments

	1983			*1984*			
	Number of Responding Institutions	*% Response*	*Mean*	*Number of Responding Institutions*	*% Response*	*Mean*	*% Change in Means*
Master's Highest							
Public	22	29%	$3,657	22	29%	$3,769	3.1% increase
Private	5	21%	$2,200	5	21%	$2,320	5.5% increase
Total Master's	27	27%	$3,387	27	27%	$3,500	3.3% increase
Ph.D. Highest							
Public	86	48%	$4,739	89	50%	$4,979	5.1% increase
Private	31	33%	$4,846	31	33%	$5,188	7.0% increase
Total Ph.D.	117	43%	$4,768	120	44%	$5,033	5.6% increase
Total Institutions							
Public	108	42%	$4,519	111	44%	$4,739	4.9% increase
Private	36	31%	$4,479	36	31%	$4,790	6.9% increase
Total	144	39%	$4,509	147	40%	$4,751	5.4% increase

These data are compiled from responses to the following question:
Approximate net payment made in 9–10 months to a first-time teaching assistant working for 20 hours per week. Since the comparability across graduate schools of assistantship stipends may be influenced by tax status, experience, department, educational level, and tuition waivers, this question requests teaching assistant stipends for a "model" first-time graduate assistant. The reported stipend should be the payment for 9–10 months of effort, excluding any tuition and fees paid by the student or provided by the institution as part of the assistantship package, for a "model" first-time teaching assistant who commits 20 hours per week to assistantship duties in an Economics Department.

TABLE 11

Stipends for Teaching Assistants in Electrical Engineering Departments

	1983			*1984*			
	Number of Responding Institutions	*% Response*	*Mean*	*Number of Responding Institutions*	*% Response*	*Mean*	*% Change in Means*
Master's Highest							
Public	10	13%	$4,149	10	13%	$4,262	2.7% increase
Private	3	13%	$2,733	3	13%	$2,800	2.4% increase
Total Master's	13	13%	$3,822	13	13%	$3,925	2.7% increase
Ph.D. Highest							
Public	78	44%	$5,355	79	44%	$5,662	5.7% increase
Private	29	31%	$5,496	29	31%	$5,699	3.7% increase
Total Ph.D.	107	39%	$5,393	108	40%	$5,672	5.2% increase
Total Institutions							
Public	88	35%	$5,218	89	35%	$5,504	5.5% increase
Private	32	27%	$5,237	32	27%	$5,427	3.6% increase
Total	120	32%	$5,223	121	33%	$5,484	5.0% increase

These data are compiled from responses to the following question:
Approximate net payment made in 9–10 months to a first-time teaching assistant working for 20 hours per week. Since the comparability across graduate schools of assistantship stipends may be influenced by tax status, experience, department, educational level, and tuition waivers, this question requests teaching assistant stipends for a "model" first-time graduate assistant. The reported stipend should be the payment of 9–10 months of effort, excluding any tuition and fees paid by the student or provided by the institution as part of the assistantship package, for a "model" first-time teaching assistant who commits 20 hours per week to assistantship duties in an Electrical Engineering Department.

TABLE 12

Stipends for Teaching Assistants in English Departments

	1983			*1984*			
	Number of Responding Institutions	*% Response*	*Mean*	*Number of Responding Institutions*	*% Response*	*Mean*	*% Change in Means*
Master's Highest							
Public	27	36%	$3,603	27	36%	$3,696	2.6% increase
Private	11	46%	$2,755	12	50%	$2,850	3.5% increase
Total Master's	38	38%	$3,358	39	39%	$3,436	2.3% increase
Ph.D. Highest							
Public	92	51%	$5,258	95	53%	$5,495	4.5% increase
Private	37	40%	$4,478	37	40%	$4,786	6.9% increase
Total Ph.D.	129	47%	$5,034	132	49%	$5,296	5.2% increase
Total Institutions							
Public	119	47%	$4,882	122	48%	$5,097	4.4% increase
Private	48	41%	$4,083	49	42%	$4,312	5.6% increase
Total	167	45%	$4,653	171	46%	$4,872	4.7% increase

These data are compiled from responses to the following question:
Approximate net payment made in 9–10 months to a first-time teaching assistant working for 20 hours per week. Since the comparability across graduate schools of assistantship stipends may be influenced by tax status, experience, department, educational level, and tuition waivers, this question requests teaching assistant stipends for a "model" first-time graduate assistant. The reported stipend should be the payment for 9–10 months of effort, excluding any tuition and fees paid by the student or provided by the institution as part of the assistantship package, for a "model" first-time teaching assistant who commits 20 hours per week to assistantship duties in an English Department.

TABLE 13

Stipends for Teaching Assistants in Chemistry Departments

	1983			*1984*			
	Number of Responding Institutions	*% Response*	*Mean*	*Number of Responding Institutions*	*% Response*	*Mean*	*% Change in Means*
Master's Highest							
Public	23	30%	$3,773	23	30%	$4,132	9.5% increase
Private	5	20%	$2,944	5	20%	$3,440	16.8% increase
Total Master's	28	28%	$3,625	28	28%	$4,009	10.6% increase
Ph.D. Highest							
Public	103	58%	$5,937	105	59%	$6,264	5.5% increase
Private	45	48%	$5,432	46	49%	$5,756	6.0% increase
Total Ph.D.	148	54%	$5,784	151	56%	$6,109	5.6% increase
Total Institutions							
Public	126	49%	$5,542	128	50%	$5,881	6.1% increase
Private	50	43%	$5,183	51	44%	$5,529	6.7% increase
Total	176	47%	$5,440	179	48%	$5,781	6.3% increase

These data are compiled from responses to the following question:

Approximate net payment made in 9–10 months to a first-time teaching assistant working for 20 hours per week. Since the comparability across graduate schools of assistantship stipends may be influenced by tax status, experience, department, educational level, and tuition waivers, this question requests teaching assistant stipends for a "model" first-time graduate assistant. The reported stipend should be the payment for 9–10 months of effort, excluding any tuition and fees paid by the student or provided by the institution as part of the assistantship package, for a "model" first-time teaching assistant who commits 20 hours per week to assistantship duties in a Chemistry Department.

Officers and Board of Directors-1984

Jules B. LaPidus, Chairman, The Ohio State University (until September 1984)
Wimberly C. Royster, Past Chairman, University of Kentucky
Robert E. Gordon, Chairman, University of Notre Dame (beginning September 1984)
Alison P. Casarett, Cornell University (1984)
Dale R. Comstock, Central Washington University (1984)
Lee B. Jones, University of Arizona (1984)
William S. Livingston, University of Texas at Austin (1986)
Arnold E. Schwartz, Clemson University (1985)
Reuben W. Smith, University of the Pacific (1985)
Vivian A. Vidoli, California State University, Fresno (1986)
Clarence L. Ver Steeg, Northwestern University (1986)
Luther S. Williams, Washington University (1985)
Michael J. Pelczar, Jr., Ex Officio, Council of Graduate Schools

Executive Committee of the Board of Directors

Jules B. LaPidus, Chairman, The Ohio State University (until September, 1984)
Wimberly C. Royster, Past Chairman, University of Kentucky
Robert E. Gordon, Chairman-Elect, University of Notre Dame
Alison P. Casarett, Cornell University
Dale R. Comstock, Central Washington University
Michael J. Pelczar, Jr., Ex Officio, Council of Graduate Schools

Regional Affiliate Board Representatives

Clara I. Adams, Morgan State University, Northeastern Association of Graduate Schools
Vaughnie J. Lindsay, Southern Illinois University at Edwardsville, Midwestern Association of Graduate Schools
James L. Clayton, University of Utah, Western Association of Graduate Schools
John J. Salley, Virginia Commonwealth University, Conference of Southern Graduate Schools

Advisory Committee on Gustave O. Arlt Award

James Ballowe, Chairman, Bradley University
Rev. Richard E. Doyle, Fordham University
A. Charlene McDermott, University of New Mexico

MISSION: To monitor guidelines and procedures for the Arlt Award, and to select the individual for this annual award.

Advisory Committee on CGS/University Microfilms International Award

Richard B. Schwartz, Chairman, Georgetown University
John Dowling, University of Georgia
Gordon H. Lamb, University of Texas at San Antonio

MISSION: To monitor guidelines and procedures for the CGS/UMI Dissertation Award, and to select the individual for this annual award.

Dissertation and Copyright Committee

J. Knox Jones, Chairman, Texas Tech University
Michael L. Mark, Towson State University
George S. Mumford, Tufts University
Carl Riggs, University of South Florida

Board Liaison: Lee B. Jones, University of Arizona

MISSION: To be available to address issues pertaining to copyrights, theses and dissertations.

Editorial Committee

Don H. Blount, Chairman, University of Missouri-Columbia
Ronald N. Satz, University of Wisconsin-Eau Claire
Vivian A. Vidoli, California State University-Fresno

Board Liaison: Dale R. Comstock, Central Washington University

MISSION: To review papers and reports prepared by or for the Council of Graduate Schools for the purpose of ensuring quality and writing clarity prior to their publication as official CGS documents.

Committee on Finance and Budget

Robert E. Gordon, Chairman, University of Notre Dame
Arnold E. Schwartz, Clemson University
Lee B. Jones, University of Arizona
Vivian Vidoli, California State University-Fresno

Committee on Governmental and Association Relations

Samuel F. Conti, Chairman, University of Massachusetts at Amherst
Paul Albrecht, Claremont Graduate School
Robert E. Gordon, University of Notre Dame
Robert W. House, Vanderbilt University
L. Evans Roth, University of Tennessee at Knoxville
Linda S. Wilson, University of Illinois at Urbana
Daniel J. Zaffarano, Iowa State University

Board Liaison: Robert E. Gordon, University of Notre Dame

MISSION: To monitor specific policies and legislation at federal and state levels pertaining to graduate education; to integrate CGS membership expertise on government relations with existing networks of the membership and other associations; to review and catalog the various types of university/industry partnerships.

Committee on Graduate Students

Raymond B. Anderson, Chairman, Columbia University
Raymond P. Lutz, University of Texas—Dallas
Ellen Mickiewicz, Emory University
William C. Richardson, University of Washington
Jud B. Samon, University of Maryland College Park
Rudolph W. Schulz, The University of Iowa
Robert T. Van Aller, University of Southern Mississippi

Board Liaison: Clarence L. Ver Steeg, Northwestern University

MISSION: At federal and state levels to monitor specific policies and legislation pertaining to graduate students; graduate financial aid issues; graduate issues in recruitment and admissions and to develop appropriate CGS policies as necessary.

Committee on International Graduate Education

Volker Weiss, Chairman, Syracuse University
Karlene N. Dickey, Stanford University
Craufurd Goodwin, Duke University
Christiane Keck, Purdue University
Neal Lambert, Brigham Young University
William S. Livingston, University of Texas at Austin

Board Liaison: Alison P. Casarett, Cornell University

MISSION: To provide an advisory group of CGS members to address policy issues, problems and legislation concerning international graduate education; to develop a position paper which would articulate the significance of international graduate education.

Committee on Membership

Eugene B. Piedmonte, Chairman, University of Massachusetts
Byron L. Groesbeck, University of Michigan
Michael Malone, Montana State University

Board Liaison: Reuben W. Smith, University of the Pacific

MISSION: To review applications for membership and criteria for membership; to explore member recruitment and possibilities of new categories of membership.

Committee on Minority Graduate Education

Anne S. Pruitt, Chairperson, The Ohio State University
Clara I. Adams, Morgan State University
Johnetta G. Davis, Howard University
Norman N. Durham, Oklahoma State University
Jaime Rodriguez, University of California, Irvine

Board Liaison: Luther S. Williams, Washington University

MISSION: To enhance the opportunities for graduate study by minorities. This includes recruitment, admissions, retention and graduation.

Nominating Committee (1984)

Wimberly C. Royster, Chairman, University of Kentucky
Dale R. Comstock, Central Washington University
Don H. Blount, University of Missouri-Columbia
Richard J. Nunge, Clarkson College of Technology
Paul R. Parks, Auburn University

CGS Annual Meeting Program Committee (1984)

Robert E. Gordon, Chairman, University of Notre Dame
John J. Bodine, The American University
Beverly B. Cassara, University of the District of Columbia
Gilbert L. Delgado, Gallaudet College
Edward W. Hawthorne, Howard University
Eugene R. Kennedy, The Catholic University of America
Jules B. LaPidus, The Ohio State University
Richard B. Schwartz, Georgetown University
Henry Solomon, The George Washington University
Michael J. Pelczar, Jr., Council of Graduate Schools, Ex-Officio

CGS/AGS Committee on Testing

Frances Horowitz, Co-Chairperson, The University of Kansas
Donald J. White, Co-Chairperson, Boston College
Elaine J. Copeland, University of Illinois at Urbana
Henry Holtzclaw, Jr., University of Nebraska—Lincoln
William Matchett, New Mexico State University
W. Dexter Whitehead, University of Virginia

Board Liaison: Wimberly C. Royster, University of Kentucky

MISSION: To monitor testing legislation and testing issues; to develop recommendations for new procedures and uses of tests.

CGS/AAI Executive Deans Committee (AFGRAD)

Michael J. Pelczar, Jr., Chairman, CGS
Clara I. Adams, Morgan State University
Charles F. Bonser, Bloomington, Indiana
Ernest Q. Campbell, Vanderbilt University
Wade H. Ellis, Ann Arbor, Michigan
George W. Kunze, Texas A&M University
Jules B. LaPidus, The Ohio State University
William H. Macmillan, University of Alabama
John P. Noonan, Kansas State University
Aaron Novick, University of Oregon
Rose-Marie Oster, University of Maryland College Park
Phyllis W. Watts, Friant, California

Board Liaison: Jules B. LaPidus, The Ohio State University

MISSION: To serve in an advisory capacity to the African American Institute in the development of guidelines and in the selection process for the AFGRAD fellowship program.

Committee on Women

Joyce Lawrence, Chairperson, Appalachian State University
Hazel Garrison, Hampton Institute
Barry Markman, Wayne State University
Shirley Menaker, University of Oregon

Board Liaison: Vivian A. Vidoli, California State University-Fresno

MISSION: To improve the status and representation of women in graduate education.

Task Force on Predominantly Master's Degree-Granting Institutions

Bernard J. Downey, Chairman, Villanova University
James Ballowe, Bradley University
Russell G. Barnekow, Jr., Southwest Missouri State University
Louis G. Pecek, John Carroll University
Albert W. Spruill, North Carolina A&T State University
Leslie M. Thompson, Georgia Southern College
Vivian A. Vidoli, California State University-Fresno

MISSION: To identify special concerns of CGS member institutions offering only master's degrees, and to bring these concerns to the attention of the CGS Board of Directors.

Task Force on Professional Graduate Programs/Degrees

Jussi J. Saukkonen, Chairman, Thomas Jefferson University
Dean Jaros, Northern Illinois University
Lee B. Jones, University of Arizona
X. J. Musacchia, University of Louisville
Lucille S. Mayne, Case Western Reserve University
Richard B. Murray, University of Delaware
Volker Weiss, Syracuse University

Board Liaison: Arnold E. Schwartz, Clemson University

MISSION: To examine the emergence of new professional programs/degrees, and explore how the situation has changed during the last decade.

Regional Associations of Graduate Schools Affiliated with the Council of Graduate Schools in the United States

Conference of Southern Graduate Schools

Executive Committee 1985–1987

Annas Aytch (1985), Alabama A & M University
William J. Cooper, Jr. (1987), Louisiana State University
James H. Fortenberry (1986), Southern University
Hazel J. Garrison (1985), Hampton Institute
Kenneth L. Hoving (1986), University of Oklahoma
Thomas A. Langford (1985), Texas Tech University
Joyce V. Lawrence (1985), Appalachian State University
William Lester (1987), Tuskegee Institute
X. J. Musacchia (1987), University of Louisville
George M. Reeves (1986), University of South Carolina
Carl D. Riggs (1985), University of South Florida
Charles U. Smith (1987), Florida A & M University

Officers 1984

Bob F. Perkins, President, University of Texas at Arlington
John J. Salley, Past President, Virginia Commonwealth University
Leslie M. Thompson, Vice President, Georgia Southern College
Arnold E. Schwartz, Secretary-Treasurer, Clemson University

Midwestern Association of Graduate Schools

Executive Committee 1984

Leo Solt, Chairman, Indiana University
Don H. Blount, Past Chairman, University of Missouri-Columbia
Vaughnie J. Lindsay, Vice Chairman, Southern Illinois University at Edwardsville
Eric Rude, Member-at-Large, University of Wisconsin-Madison
R. F. Kruh, Secretary-Treasurer, Kansas State University

Northeastern Association of Graduate Schools

Officers 1984

Clara I. Adams, President, Morgan State University
Robert B. Lawson, Past President, University of Vermont
Richard B. Murray, Secretary-Treasurer, University of Delaware
Sister Anne L. Clark, Member-at-Large, The College of Saint Rose
Lon W. Weber, Member-at-Large, West Chester University

Western Association of Graduate Schools

Officers 1984

Lee B. Jones, President, University of Arizona
Vivian A. Vidoli, Past President, California State University, Fresno
Michael Malone, President-Elect, Montana State University
Neal E. Lambert, (1985), Member-at-Large, Brigham Young University
A. Charlene McDermott (1986), Member-at-Large, University of New Mexico

The Constitution of the Council of Graduate Schools in the United States
(as revised January, 1983)

1. Name

This organization shall be called the Council of Graduate Schools in the United States, hereinafter referred to as the "Council."

2. Purpose

The Council is established to provide graduate schools in the United States with a comprehensive and widely representative body through which to counsel and act together.

Its purpose is the improvement and advancement of graduate education. The purview of the Council includes all matters germane to this purpose. The Council shall act to examine needs, ascertain best practices and procedures, and render assistance as indicated; it may initiate research for the furthering of the purpose. It shall provide a forum for the consideration of problems and their solutions, and in meetings, conferences, and publications shall define needs and seek means of satisfying them in the best interests of graduate education throughout the country. In this function the Council may act in accordance with the needs of the times and particular situations to disseminate to the public, to institutions, to foundations, to the federal, state, and local governments, and other groups whose interest or support is deemed of concern, information relating to the needs of graduate education and the best manner of satisfying them.

In the analysis of graduate education, in the indication of desirable revision and further development, in the representation of needs and all other functions related to effecting its purpose, the Council not only shall be free to act as an initiating body, but it shall assume direct obligation for so doing.

3. Membership

Membership in the Council of Graduate Schools in the United States shall be limited to two categories: Regular and Sustaining. All members shall be aware that the Council is devoted to excellence in graduate education as interpreted by occasional position statements outlining philosophies, policies, and procedures of graduate education. Applicants for membership shall display evidence as to qualifications in a form and as otherwise prescribed by the Council. All applications will be reviewed and evaluated by the Council's Membership Committee, which will bring its recommendations to the Executive Committee for action.

A. Regular Membership. Institutions of higher education in the United States which are significantly engaged in graduate education, research, and scholar-

ship, and the preparation of candidates for advanced degrees are eligible for Regular Membership. Applicant institutions must already have been approved to offer graduate work by the appropriate regional accrediting association, and shall have awarded at least thirty master's degrees or ten doctoral degrees (or combination thereof) in at least three distinct and separate fields or disciplines within the three years immediately prior to the date of application. Applicant institutions must also have a formally organized administrative unit responsible for graduate affairs. Each application for membership shall contain evidence as to these qualifications in a form prescribed in the Bylaws.

B. Sustaining Membership. Both profit and nonprofit organizations such as research institutes; testing and evaluation corporations; philanthropic and charitable organizations; federal, regional and state agencies; public and private research and development corporations; and foreign and multinational organizations are eligible for Sustaining Membership. Such organizations must recognize the value of quality graduate education across a broad range of scholarly, technological and creative endeavors. Through their participation and membership dues they help the Council carry out its central mission and purpose, while gaining access to its resources and activities.

Sustaining Members are encouraged to interact and communicate with Regular Members both informally and formally. Sustaining Members may attend CGS meetings and other sponsored functions; however, they do not have voting rights nor are they eligible to hold elected CGS office.

They are listed in the annual CGS Directory and receive the same generally distributed information and material as Regular Members. Appropriate annual membership dues will be levied by the Council (see Article 11). CGS neither endorses nor represents the interests of Sustaining Members, explicitly or implicitly.

Applications for Sustaining Membership shall be made in a form prescribed by the Bylaws. Each applicant will be considered by the Membership Committee in light of the Purpose (Article 2) of the Council.

4. Voting Power

In all activities of the Council, each regular member institution shall have one vote. More than one representative of any institution may attend the meeting of the Council, but the member's vote shall be cast by the individual designated as the principal representative of the member by the chief administrative officer of the member institution.

5. Officers and Board of Directors

The officers of the Council and the Board of Directors shall be a Chairman, a Chairman-Elect, and the immediate Past Chairman, each serving for a term

of one year. In the absence of the Chairman, the Chairman-Elect shall be presiding officer of the Board of Directors and the Council.

There shall be a Board of Directors of twelve voting members, composed of the Chairman, the Chairman-Elect, the Past Chairman and nine members-at-large. Three members-at-large shall be elected annually by the members of the Council in the manner specified in Article 8 for terms of three years which begin immediately after the Annual Meeting.

The Chairman-Elect, chosen by the Board of Directors from its own past or present membership, shall serve in that capacity for one year. The following year, the Chairman-Elect will assume the office of Chairman, and the following year, the office of Past Chairman.

Each voting member of the Board of Directors must be the principal representative of an institutional member of the Council and none may serve for two consecutive full terms.

If the Chairman is unable to continue in office, the Chairman-Elect shall succeed immediately to the Chairmanship, and the Board of Directors shall choose a new Chairman-Elect.

Any vacancy occurring among the membership-at-large of the Board of Directors shall be filled in the manner specified in Article 8. In the interim, the position shall be filled by an appointee of the Board of Directors.

6. Executive Officers

The chief executive officer of the Council shall be a President, who shall be a salaried officer, appointed by the Board of Directors and serving at its pleasure. The President shall serve an an ex-officio member of the Board of Directors without a vote.

7. Duties and Powers of the Board of Directors

In addition to the duties and powers vested in the Board of Directors elsewhere in this Constitution, the Board of Directors may specifically employ such staff and establish such offices as may seem necessary; incorporate; undertake itself, or through its agents, to raise funds for the Council and to accept and expend monies for the Council; take initiative and act for the Council in all matters including matters of policy and public statement except where limited by this Constitution or by actions of the Council.

8. Committees

In addition to the Board of Directors, there shall be an Executive Committee of the Board of Directors, a Nominating Committee, a Committee on Membership, whose members shall not be members of the Board of Directors, and such other standing committees as may be established by the Board of Directors.

Except for the Executive Committee and the Nominating Committee, all stand-

ing committees and ad hoc committees shall be appointed by the Chairman with the advice and consent of the Board of Directors. Committee membership shall be limited to regular members of the Council.

The Executive Committee shall consist of the Chairman, Past Chairman, and Chairman-Elect and two other Board members elected annually by the Board of Directors. The President of the Council shall be an ex-officio member of the Executive Committee.

To the extent determined by the Board, the Executive Committee shall have the authority of the Board in the management of the affairs of the Council in the intervals between meetings of the Board. The actions of the Executive Committee shall be reported at the next meeting of the Board of Directors.

The Nominating Committee shall consist of five new members each year of whom three shall be elected by the members of the Council. Two shall be members of the Board of Directors. The Chairman of the Committee shall be the Past Chairman of the Board. The one other Board member shall be elected by the Board from its members-at-large who shall be in the last year of their terms.

At least sixty-one days before each Annual Meeting of the Council, the Nominating Committee shall propose to the members of the Council two nominees for each member-at-large position of the Board of Directors to be filled including residual terms of vacated positions, and two nominees for each member-at-large position of the Nominating Committee. These nominations shall be made only after suggestions accompanied by supporting vitae have been solicited from the membership-at-large.

The election will then be held by mail ballot and the nominees receiving the larger number of votes for the positions to be filled shall be declared elected. In case of a tie vote, the Nominating Committee shall break the tie.

9. Meetings

The Council shall hold an Annual Meeting at a time and place determined by the Board of Directors. The Council may meet at other times on call of the Board of Directors.

The Board of Directors shall be responsible for the agenda for meetings of the Council. Reports and proposals to be submitted for action by the Council shall be filed with the Board of Directors before they may be submitted for general discussion by the Council. No legitimate report or proposal may be blocked from presentation to the Council, but action on any proposal may not be taken until the Board of Directors has had an opportunity to make a recommendation.

In matters not provided for in this Constitution, parliamentary procedure shall be governed by Robert's Rules of Order, Revised.

10. Limitation of Powers

No act of the Council shall be held to control the policy or line of action of any member institution.

11. Dues

Membership dues shall be proposed by the Board of Directors and must be approved by the majority of the membership after due notice.

12. Amendments

Amendments to this Constitution may be proposed by the Board of Directors or by written petition of one-third of the members. However they originate, proposals for amendments shall be received by the Board of Directors and forwarded with recommendations to the members, in writing, at least ninety days before the meeting at which they are to be voted upon or before formal submission to the members for a mail ballot. To be adopted, proposed amendments must receive the approval of a two-thirds majority of the members voting at the announced meeting or on the designated mail ballot.

13. Bylaws

Bylaws may be established by the Board of Directors at any regular or special meeting, subject to ratification by a simple majority vote of the Council at the next Annual Meeting.

BYLAWS

1. In conformity with Article 6 of the Constitution, the President of the Council of Graduate Schools in the United States shall be paid an annual salary to be determined by the Board of Directors plus such perquisites as may be necessary for the proper conduct of the office and such travel as may be deemed essential. The President is authorized to employ such personnel as necessary for the proper conduct of the office, to establish bank accounts in the name of the Council of Graduate Schools in the United States, and to draw checks and invest monies against the Council's account or accounts, subject to an annual audit of the books of the Council by a Certified Public Accountant and approval by the Board of Directors.
2. Depositories for funds of the Council shall be designated by the Board of Directors.
3. In the event of the dissolution of the Council of Graduate Schools, all then existing assets of the Council shall be distributed in equal parts to the institutions which will at the time be members of the Council.
4. The fiscal year of the Council will correspond to the calendar year.
5. In the event of the death or disability of the President of the Council, the Chairman shall immediately call a meeting of the Board of Directors to select an Acting President, who shall assume the responsibilities of the President, as they are specified in Article 6 of the Constitution and in Bylaws 1 and 2, until the appointment of a new President.

6. Regular membership applicants responding to Section 3 of the Constitution are expected to furnish statements endorsed by the chief executive officer and the chief graduate officer of their institution. These statements should include information as to the following:
   a) The institution's accreditation for graduate work as determined by the appropriate regional accrediting association.
   b) The number of graduate degrees awarded in the three years immediately preceding the application for each applicable field or discipline in which graduate degrees are awarded.
   c) A general description of the criteria used in determining faculty participation in graduate programs, i.e., the level of training and the scholarly/creative productivity of the faculty members in the institution's graduate program.
   d) The degree of centrality of graduate education to the nature and purpose of the institution as evidenced by its budgetary commitment to graduate programs, the existence of special facilities or resources in specific support of graduate education, and, in the case of appointments, promotion and tenure, the degree of importance placed on faculty contributions to graduate and scholarly/creative work.
   e) The extent of the institution's acceptance of existing Council policy statements setting forth standards for the organization of graduate study.
7. Materials and information requested from the chief administrative officer of organizations applying for Sustaining Membership should include a statement of the aims and objectives of their organization; a statement of interest in graduate study; documentation of engagement in or commitment to research and development, creative expression, or the exploration of ideas; characterization of the educational level and achievements of the organization's professional staff; identification of affiliations with other associations or institutes relevant to graduate education; and a statement showing prior support of higher education.

   Applicant organizations must have been in existence for a period of time sufficient to establish the above commitments.

   Applicants agree to accept existing Council policy statements setting forth standards for graduate study and allied concerns.
8. A regional organization of graduate schools which becomes associated with the Council of Graduate Schools in the United States shall be known as a CGS affiliate. Eligibility for CGS affiliate status is limited to a) existing regional organizations of graduate schools or b) any such organizations subsequently established and having membership of at least 50 institutions. An eligible organization becomes a CGS affiliate upon approval by CGS's Board of Directors of a letter from a duly authorized officer at that organization stating its intent to become an affiliate. No fee is required to become a CGS affiliate. Formal participation of the regional associations in CGS shall be provided through the Board nomination and election process in such a way that a

representative of at least one institution in each of the affiliated regional associations, who otherwise meet CGS's constitutional requirements for Board membership, is a member of the Board. One such member may then be designated by each affiliate as its liaison member, who shall have, as an extra responsibility beyond that of regular Board membership, to communicate information and views between the Board and the officers of the affiliate. (Alternatively, a regional organization which is an affiliate of the Council may designate as its liaison representative an individual who is not a Board member.) Such communication does not preclude direct communication between CGS and officers of the affiliates. A liaison member may or may not be an officer of the affiliate and is free to act on any Board decision independent of any position described by his or her affiliate. In determining any joint position held by CGS and its affiliates, the governing bodies of each must have adopted such a position through their own procedures. When agreement has been reached, CGS shall be able to represent the position as one held in common by CGS and its affiliates.

Section 10 of the Consitution of CGS shall apply to any such determination.

PROCEDURAL POLICIES

1. Annual meetings of the Council shall be held during or near the first week of December.
2. If a member resigns, it must reapply for admission in the normal way if it wishes to resume membership.
3. Institutions accepted to membership in any given year are required to pay prorated dues on a quarterly basis for that fiscal year.

Alphabetical Listing of Member Institutions

Abilene Christian University
Adelphi University
Air Force Institute of Technology
Alabama A&M University
Alfred University
* American University, The
Andrews University
Angelo State University
Appalachian State University
Arizona State University
Arkansas State University
Atlanta University
Auburn University
Austin Peay State University
Ball State University
Baylor College of Medicine
Baylor University
Bentley College
* Boston College
Boston University
Bowling Green State University
Bradley University
* Brandeis University
Bridgewater State College
Brigham Young University
Brooklyn College of CUNY
* Brown University
* Bryn Mawr College
* California Institute of Technology
California State College, Stanislaus
California State Polytechnic University, Pomona
California State University, Fresno
California State University, Fullerton
California State University, Hayward
California State University, Long Beach
California State University, Los Angeles
California State University, Northridge
California State University, Sacramento
California University of Pennsylvania
* Case Western Reserve University
* Catholic University of America
Central Michigan University
Central Missouri State University
Central State University
Central Washington University
Chicago State University
City College of the City University of New York
City University of New York
* Claremont Graduate School, The
* Clark University
Clarkson College of Technology
Clemson University
Cleveland State University
College of Notre Dame
College of St. Rose
College of William & Mary
Colorado School of Mines
Colorado State University
* Columbia University
* Cornell University
Creighton University
Dartmouth College
Drake University
Drexel University
* Duke University
Duquesne University
East Central University
East Carolina University
East Tennessee State University
East Texas State University

Eastern Illinois University
Eastern Kentucky University
Eastern Michigan University
Eastern Washington University
* Emory University
Emporia State University
Fairleigh Dickinson University
Fielding Institute
Fitchburg State College
Florida A & M University
Florida Atlantic University
Florida International University
* Florida State University
* Fordham University
Fort Hays State University
Framingham State University
Gallaudet College
Gannon University
George Mason University
* George Washington University, The
* Georgetown University
* Georgia Institute of Technology
Georgia Southern College
Georgia State University
Governors State University
Hahnemann University
Hampton Institute
Hardin-Simmons University
* Harvard University
Hebrew Union College-Jewish Institute of Religion
Hofstra University
Holy Names College
Howard University
Idaho State University
* Illinois Institute of Technology
Illinois State University
Indiana State University
Indiana University
* Indiana University of Pennsylvania
Inter-American University of Puerto Rico
Iona College
* Iowa State University
Jackson State University
James Madison University
John Carroll University
* Johns Hopkins University, The
* Kansas State University
Kent State University
Lamar University
* Lehigh University
Loma Linda University
* Louisiana State University
Louisiana State University Medical Center School of Graduate Studies
Loyola Marymount University
* Loyola University of Chicago
Mankato State University
Marquette University
Marshall University
* Massachusetts Institute of Technology
Medical College of Georgia
Medical College of Pennsylvania
Medical College of Wisconsin
Medical University of South Carolina
Memphis State University
Miami University
* Michigan State University
Michigan Technological University
Middle Tennessee State University
Mississippi State University
Montana State University
Montclair State College
Morehead State University
Morgan State University
Murray State University
National University
Naval Postgraduate School
New Jersey Institute of Technology
New Mexico Institute of Mining and Technology
New Mexico State University

* New School for Social Research
New York Institute of Technology
New York Medical College
* New York University
North Carolina Agricultural and Technical State University
North Carolina Central University
* North Carolina State University at Raleigh
North Dakota State University
North Texas State University
Northeast Missouri State University
Northeastern Illinois University
Northeastern University
Northern Arizona University
Northern Illinois University
Northwestern State University of Louisiana
* Northwestern University
Nova University
Oakland University
* Ohio State University, The
Ohio University
* Oklahoma State University
Old Dominion University
* Oregon State University
* Pennsylvania State University, The
* Pepperdine University
Pittsburg State University
Polytechnic Institute of New York
* Princeton University
* Purdue University
Queens College of The City University of New York
Radford University
* Rensselaer Polytechnic Institute
Rhode Island College
* Rice University
Rochester Institute of Technology
* Rockefeller University, The
Roosevelt University
* Rutgers-The State University
St. Bonaventure University
* St. John's University
* St. Louis University
St. Mary's University
Sam Houston State University
Samford University
San Diego State University
San Francisco State University
Sangamon State University
San Jose State University
Seattle University
Shippensburg University
Sonoma State University
South Carolina State College
South Dakota School of Mines and Technology
South Dakota State University
Southeast Missouri State University
Southeastern Louisiana University
Southern Illinois University at Carbondale
Southern Illinois University at Edwardsville
Southern Methodist University
Southern University
Southwest Missouri State University
Southwest Texas State University
* Stanford University
State University of New York at Albany
State University of New York at Binghamton
* State University of New York at Buffalo
State University of New York at Stony Brook
State University of New York Downstate Medical Center
State University of New York Upstate Medical Center
Stephen F. Austin State University
Stetson University
Stevens Institute of Technology

* Syracuse University
* Temple University
Tennessee State University
Tennessee Technological University
* Texas A & M University
Texas Christian University
Texas Southern University
Texas Tech University
Texas Woman's University
Thomas Jefferson University
Towson State University
Trinity University
Tufts University
* Tulane University
United States International University
University of Akron
* University of Alabama
University of Alabama in Birmingham
University of Alabama in Huntsville
University of Alaska
* University of Arizona
University of Arkansas
University of Arkansas at Little Rock
University of Baltimore
University of Bridgeport
* University of California, Berkeley
University of California, Davis
University of California, Irvine
University of California, Los Angeles
University of California, Riverside
University of California, San Diego
University of California, San Francisco
University of California, Santa Barbara
University of Central Florida
* University of Chicago
University of Cincinnati
* University of Colorado
University of Connecticut
University of Dayton
* University of Delaware
* University of Denver
University of the District of Columbia
University of Evansville
* University of Florida
University of Georgia
University of Hartford
University of Hawaii at Manoa
University of Health Sciences/The Chicago Medical School
University of Houston
University of Houston-Clear Lake
University of Idaho
University of Illinois at Chicago
University of Illinois at Chicago Health Sciences Center
* University of Illinois at Urbana-Champaign
* University of Iowa
* University of Kansas
* University of Kentucky
University of Louisville
University of Lowell
University of Maine at Orono
* University of Maryland
University of Maryland at Baltimore
University of Maryland Baltimore County
University of Maryland College Park
University of Maryland Eastern Shore
University of Maryland University College
University of Massachusetts at Amherst
University of Massachusetts at Boston
University of Medicine & Dentistry

of New Jersey/Graduate School of Biomedical Sciences
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*University of Michigan
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University of Missouri-Rolla
University of Missouri-St. Louis
University of Montana
*University of Nebraska
University of Nevada-Las Vegas
University of Nevada-Reno
University of New Hampshire
University of New Haven
University of New Mexico
University of New Orleans
*University of North Carolina at Chapel Hill
University of North Carolina at Charlotte
University of North Carolina at Greensboro
*University of North Dakota
University of Northern Colorado
University of Northern Iowa
*University of Notre Dame
*University of Oklahoma
*University of Oregon
University of the Pacific
*University of Pennsylvania
*University of Pittsburgh
University of Puerto Rico, Mayaguez
University of Puerto Rico, Rio Piedras
University of Rhode Island
*University of Rochester
University of Santa Clara
University of Scranton
University of South Alabama
University of South Carolina
University of South Dakota
University of South Florida
*University of Southern California
University of Southern Maine
*University of Southern Mississippi
University of Tennessee at Chattanooga
University of Tennessee at Knoxville
University of Tennessee at Martin
University of Tennessee Center for The Health Sciences
University of Texas at Arlington
*University of Texas at Austin
University of Texas at Dallas
University of Texas at El Paso
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University of Texas at Tyler
University of Texas Graduate School of Biomedical Sciences at Galveston
University of Texas Health Science Center at Houston Graduate School of Biomedical Sciences
University of Texas Graduate School of Biomedical Sciences at San Antonio
University of Toledo
University of Tulsa
*University of Utah
University of Vermont
*University of Virginia
*University of Washington
University of Wisconsin-Eau Claire
*University of Wisconsin-Madison
University of Wisconsin-Milwaukee
University of Wisconsin-Oshkosh
University of Wisconsin-Stout
*University of Wyoming
Utah State University
*Vanderbilt University
Villanova University
Virginia Commonwealth University

* Virginia Polytechnic Institute and State University
Wake Forest University
* Washington State University
Washington University
* Wayne State College
Wayne State University
Wesleyan University
West Chester University
West Texas State University
* West Virginia University
Western Carolina University
Western Illinois University
Western Kentucky University
Western Michigan University
Western State College of Colorado
Western Washington University
Westfield State College
Wichita State University
Worcester Polytechnic Institute
Worcester State College
Wright State University
Xavier University
* Yale University
Yeshiva University
Youngstown State University

* Founding Institutions

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